

MICHIGAN FARMER

AND STATE JOURNAL OF AGRICULTURE.

The Only Agricultural and Live Stock Journal in the State.

VOL. XXXIII.
NO. 12.

DETROIT, SATURDAY, MARCH 19, 1898.

PRICE 5 CENTS.
\$1 per Year.

Farm Department.

Conducted by J. H. Brown, who lives on his farm at Climax, Mich., which is conducted as the Michigan Farmer Experiment Farm. All correspondence for this department should be sent to Climax, Mich.

THE EDITOR'S FARM NOTES.

EARLIEST CROP FOR GREEN SOILING.
I would like to hear, through the columns of your paper, what to plant or sow to make the best and earliest crop for green soiling this spring.

Cass Co., Mich. A SUBSCRIBER.
If you had sown rye last fall it would have been ready to turn under early in June. As you give no particulars or conditions of soil and previous crop we suggest you try crimson clover and Canadian field peas.

WHAT SIZE WHEELS FOR FARM TRUCK?
I would like to ask J. H. Brown, or some one, how wide tires and how high wheels are best for a farm wagon.

Genesee Co., Mich.
Assuming that the truck is preferable for use on the farm, we should prefer to have the front wheels 30 inches, and the rear wheels 34 inches in diameter.

On a farm where small stone abound and where the surface is not comparatively smooth, wheels of less diameter will draw harder. The draft hitch is so low down, compared with the purchase pull on the horse's shoulder that, at every unyielding obstruction, it takes so many more pounds pull to lift the load over the obstruction.

Of course it is preferable to have the wagon box, rack, or platform as low down as practical and feasible. The greatest labor in loading the average farm vehicle is in the strain of lifting still higher, after we have lifted a weight waist-high.

We have often lifted a heavy stone waist-high, and wasted much energy in trying to lift the same stone six inches higher to deposit on the plank platform of a farm wagon. It was largely on this account that we built the low down farm truck, illustrated in The Farmer two years ago.

On very smooth ground, wheels of 24 inches diameter may be profitably used for many purposes, but we prefer to have them, on our farm, not less than 30 inches.

As to the width of tires, much depends on circumstances, as well as to whether the front and hind wheels shall "track" or not. Our low down truck had four-inch tires, and did not track. We need a new truck, and think of trying steel wheels, 30 and 34 inches diameter, with four-inch tires.

We do not favor the old style high wheels, nor the very "low down" wheels, on a general purpose farm and road wagon. We have just purchased such a general purpose wagon, and had it fitted with the old Saven style of wheels, instead of the heavy wood hubs, and with tubular steel axles.

The front wheels are 38 inches and the rear wheels 44 inches in diameter.

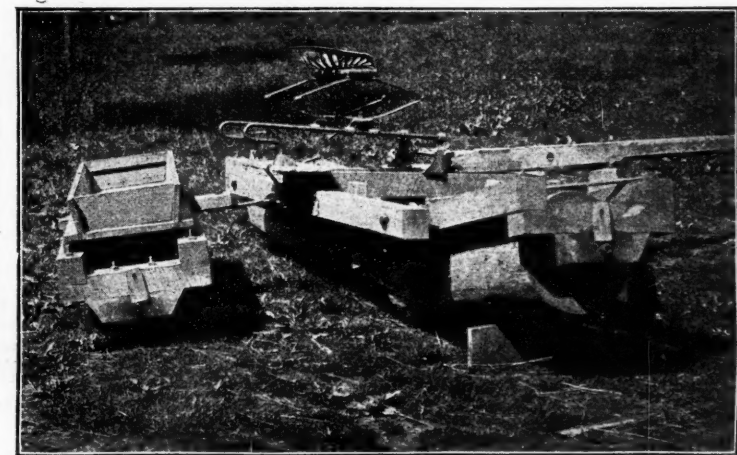
As this wagon is to be used on the road more or less, we took three-and-one-quarter-inch tires.

This makes the wagon box bed much lower than our old wagon, and yet it is not "low down" enough for a farm truck, to suit our purpose. Hence we shall try to find time to make a new truck sometime during the summer.

HOME-MADE ROLLER.

The roller illustrated on this page was made by the writer some five or

six years ago. As the picture shows, the roller is very flexible. It contains three rolls, three feet six inches long, and each roll is 16 inches in diameter. The two front rolls run parallel, and are two feet six inches apart. Thus the roller takes nine and one-half feet track at each passage across the field. It is a heavy machine, and we use a three-horse team when rolling down plowed ground.



HOME-MADE LAND ROLLER.

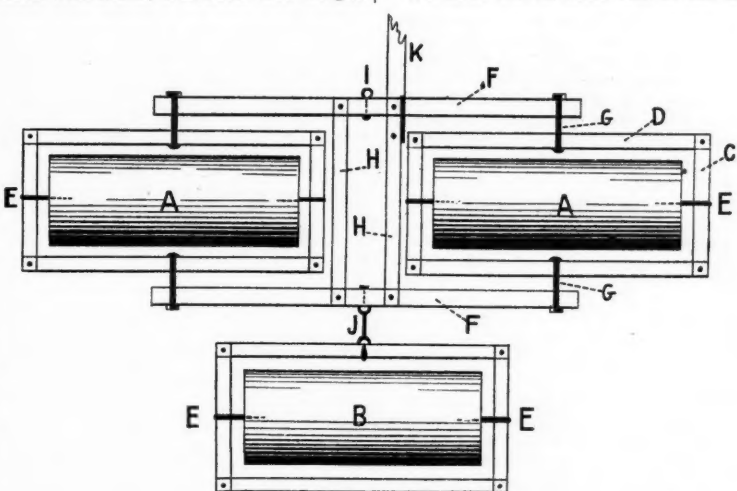
As the rear roll has less frame-work about it, we made a weight box to set on top of the roll frame, and this is filled with stone, if needed. The weight

is also very handy to pick up and throw in any "stray" stone that are scattered over the field.

THE ROLLS.

They are made out of white oak logs, cut and hewed to a perfect circle when green. The best specimens of straight-grained timber were selected from our own wood lot. We first set a log on the plank floor of the tool house. Then fastened a straight-edge on each side of each end of the log. Each straight-edge was made vertical, and also at right angles to the log, by means of a carpenter's square.

We next cut off each end of the log



ROLLER FRAME CONSTRUCTION.

with a cross-cut saw, using the pieces of straight-edge for a guide. In the center of each end of the log we drove a small nail. By using a small cord and pencil we marked out a 16-inch circle on each end. The ends were next chamfered down to the marked circle. It was then an easy matter to hew down the sides to the line of the end circles,

by means of a straight-edge. This made a perfectly true roll.
For bearing shafts we bored holes about ten inches deep into the end centers of each roll, and drove short sections of gas pipe therein. These shafts (E, see plan of frame-work) projected about eight inches.

Each roll, A, sets into a frame made of kiln-dried white oak stuff 4x4 inches square. The end piece, C, is 22 inches long; side piece, D, is 4 feet 6 inches in length. The ends are halved and bolted together with half-inch bolts—washer at each end.

As the picture shows, the roll shafts run through short blocks bolted on the under side of the end pieces. These blocks are of the same material 4x4x10 inches in size. The upper side is somewhat longer as the ends are beveled. A slanting hole three-eighth inch in diameter is bored from the outside down to the shaft hole for admitting oil. A piece of shingle fastened by a screw, makes a good dirt excluder.

The two front rolls, with their frames, are fastened in between the long pieces, F. These pieces are 4x4 inches by seven feet long. In the center of the roll frames, front and back, three-quarter-inch holes are bored, also through the ends of pieces marked F. These pieces are next bolted to the front roll frames by three-quarter-inch bolts. Heavy hard wood washers are placed between at the points indicated by G. This allows an easy vertical movement of the ends of each front roll in passing over the ground. At the same time the whole is thoroughly bolted together. Washers are used at both ends of all bolts. Rubbing blocks are fastened on the inside of the pieces F, for the inside ends of roll frames to rub on, and thus prevent any twisting when turning the roller around. As an additional precaution we bolted on a half-inch rod over each front roll frame, running diagonally across opposite end corners.

To stiffen the two pieces, F, two cross pieces, H, are bolted on between the two front rolls. On these two pieces the seat frame is fastened. The seat and tongue are from an old mower. The seat slides to any point needed by the rider to exactly balance the tongue in the neckyoke ring. The tongue, K, is bolted on the right cross piece, H. When three horses are used it is just right for the three-horse whippetrees. When two horses are used, we provide a long evener. The hitch is always at the center of the frame, indicated by the ring I. J shows the ring and rod connection of the rear roll to main frame.

About the only thing that can wear out is the shaft block through which the shaft, E, runs. When necessary, a new block can be quickly made and substituted. In all the use we, and several neighbors, have given this roller, not one shaft block has worn out. This home-made roller cost us less than three dollars for material, and we

would not sell it today for less than ten dollars, after using it for some years. We would not trade it for any of the patent rollers.

DRAIN TILE FOR MUCK SWAMP.

I have some swamp land that I wish to drain next summer, and it is impossible to get tile for anything reasonable in these parts, as they are not manufactured here.

Could you give me a plan to use something in place of it? There is lots of timber and stone here (just common round stone), and I am afraid to use them.

I think the muck would work in and fill up the ditch. The muck is four or five feet deep in some places and there is plenty of fall.

Wexford Co., Mich.

JAMES BELL.

We advise you to dig an open ditch across this swamp. After some little time it will need cleaning out, and you can readily get to it.

The mucky soil will settle more or less in the course of a few years, and it might then be safe to use tile. But we should be afraid to put in tile at present, even if they were "dirt cheap." They would soon clog up and necessitate digging up, and the recleaning of the whole ditch course.

WEEDS, HARROWS AND CRIMSON CLOVER.

Being a subscriber to The Michigan Farmer, I should like to ask a few questions which I hope you will answer through the paper.

(1) In what way do you consider a weeder preferable to a 60-tooth harrow?

(2) If you could have only one harrow for all purposes, what kind would you have?

(3) On a clay loam soil would corn be benefited by manure in the hill? If so, what kind would you use?

(4) Will crimson clover produce as much hay per acre as our common June clover?

(5) How would it do to seed corn ground down to clover, the first time through with the cultivator, say in July?

(6) Have you had any experience with Alsike clover?

Van Buren Co., Mich.

J. S. DRAP.

(1) The weeder is much lighter, has finer teeth, and does excellent work in hills and drills, at times when no other harrow can be used. It largely takes the place of a hand hoe, if used at proper times, and goes well in conjunction with the harrow and cultivator in maintaining a dirt or dust mulch in the corn and potato field.

(2) A spring tooth harrow, steel frame, and adjustable lever. After that I would make a spike tooth harrow, of 60 teeth, buy the teeth and make my own wooden frame.

(3) Yes, but we should prefer to apply stable manure broadcast, as previously stated to many brother farmers in these columns. If you wish to try hill manuring on a small area, we would suggest that you try some commercial fertilizer. If you try the experiment, please write to us in due time.

(4) Yes, nearly so, under favorable conditions, in latitudes farther south, but we would not use crimson clover for hay. Our only use of this plant would be for manurial purposes.

(5) All right, and if there is no serious drouth during the next succeeding six weeks, you stand a good chance of securing a good growth of clover. At that time crimson clover might do well, but we should prefer June clover, if the field is to be seeded down.

(6) Yes, and it is good to mix in with red or June clover. Our plan has been to use one-half bushel of red and one peck each of Mammoth and Alsike clover to each bushel of seed sown.

For The Michigan Farmer.

WEEDS, SHINGLES AND FENCE POSTS.

Knowing the willingness of Editor Brown and readers in general to answer questions for brother farmers, I venture to ask a few in regard to matters that have been puzzling me for some time.

We have some twelve acres of good bottom land that has been in corn nearly every year for a quarter of a century. During all these years we have experienced more or less difficulty with a vine which we call wild morning-glory (some call it devil-gut). Last season this vine was more troublesome than ever before, spreading over more land than formerly. Probably two acres are infested with it now and if it continues to spread as

it has in the past, in a few years it will be pretty much all over the field. It twines around the hills of corn and grows clear to the tassel, and then don't always stop.

It comes up quite thick on the ground, and as soon or even sooner than the corn. The ground I find, in plowing, to be quite full of roots, which, according to my recollection, are as thick as my little finger and of a whitish color. Now, who will tell me how to get rid of the nuisance?

The gables of our horse stable are at east and west ends of building. About fourteen years ago we put on a new oak shingle roof, "lap" style. The roof on the north side is seemingly all right, the shingles remaining down to their places as when first put on. But the south side of roof is quite different. Many shingles have begun to curl up, and I notice that quite a good many nails have been drawn entirely out of the lath, leaving nothing to hold the lower ends of shingles down to their places.

This side of the roof will not last many years, unless the shingles can be drawn down and kept to their places. How can this be accomplished? Would it do to use a larger nail than formerly used, and put it in the same hole, or would it be better to drive a nail in a new place, or would either plan amount to anything?

During the present winter several white walnut or butternut trees have blown down in our woods. Can the editor or readers tell me anything about the lasting qualities of this timber when used as fence posts? Will need some posts the coming season, and if this timber will last it would suit to use these trees.

Ohio.

FRANK LESLIE.

The morning-glory pest needs persistent treatment. The cleanest cultivation you can give the corn should be followed up after harvest by pulling up those roots that are succoring a vine "up a cornstalk." This can be done if your patch is small. What brother farmer has had a "tussle" with this plant, under the conditions named? How did you eradicate the pest?

We have tried nailing down such old shingles, and the usual result was to split the shingle. You would need to use nails having much broader heads. If you drove again into the same old holes in the shingles. At this distance it is hard to advise, but it seems to us better to lay a new roof on that side, if the roof leaks badly.

We have had no experience with such fence posts, but think we should prefer to use something else. Have you ever tried any of the angle steel posts? We have several queries on hand as to the practical value and expense of steel posts, and would like to hear from brother farmers who have tested them long enough to speak from experience in a crucial test.—Ed.)

For The Michigan Farmer.

THE MANUFACTURE AND APPLICATION OF MANURE.

I have been much interested in the articles on this subject which have appeared in The Farmer from time to time; but I see that most of the writers favor winter application.

This does not agree with my experience. Unless the land is very level and subject to little or no surface wash I invariably object to applying manure when the ground is frozen. This for the reason that under heavy rains and rapid thaws a large portion of its desirable properties will be washed away.

I have applied manure at all time of the year for the past seven years. I would say, for the benefit of those who have not had experience, go slow with your winter application of manure, especially if your farm is rolling and inclined to wash. The Americans are great for "fads," and when one becomes the rage, we go it with a vengeance.

Winter application is all the go just now, and it is being written up as though it was something "new under the sun."

These "fads" return about every so often, and rage like "measles" among school children. But there is this difference. Children seldom have the measles more than once, while we grown-up people take these "fads" every time they come our way.

Again I say to the inexperienced, "Go slow." Don't believe everything you read, not even what I am writing, until you prove it. "Prove all things, hold fast that which is good."

Now I will give you my present

mode of saving and applying manure. It is nothing new. I suppose it was practiced a thousand years before I was born. Here it is:

I bed down the yard as soon as I thresh, make no manure piles to heat and burn out, but scatter the manure as fast as cleaned from the stables all over the yard; a little trouble, but what isn't?

As soon as the bedding is well trodden down by the stock, bed again and again so as to hold the liquids as much as possible. The yard of course should be level as possible.

A side hill is no place for a barnyard. Toward the latter part of the season the yard will not need so much straw if plenty is used in bedding the stock. When you turn your stock out, turn them into this yard.

If your cattle have no horns they will not hurt the sheep, and if they have, take off the horns at once.

Observation has taught me that the greater part of the many thousands of bushels of corn which the hogs of Michigan make into manure every year is lost, as far as enriching the soil is concerned. Hog manure is of the very best quality, and to save this I feed my hogs in pens adjacent to the barnyard, so that they spend all their time, except when feeding, in the barnyard, sleeping in the straw, which keeps them clean.

Any time after spring opens the manure is ready to be applied to the soil. It is my custom to apply to sod which is to be plowed for corn, the earlier the better. Then the grass will grow up through it and add to its fertilizing power.

I have realized good results by applying to both meadow and pasture lands. Also in top-dressing wheat ground, both before and after sowing. But I think that the winter-made manure will waste a great deal if left in the yard till after harvest; hence yards should be cleaned spring and fall.

Of course a big strawstack is indispensable in making manure in this way, and this we should all strive to have, even though wheat, oats and rye are cheap.

CHAS. R. COOK.

Oakland Co., Mich.

(The above plan is also a good one, and had been our practice for many years previous to the winter of 1895-6.

We must, each of us, plan and perform our work of hauling and spreading manure whenever and wherever continued trials prove to be practical and expedient.

During the present winter we have hauled cut daily when the weather permitted, and until the last deep snow came, and spread over certain places in a 16-acre field.

These places have been where the soil was poorer, and on a comparatively level surface. There will be no wash on these portions, and in fact much of the manure was spread before any amount of snow had fallen, and previous to the holidays.

This manure is doing, and will do, more good to next season's corn crop than any manure we shall haul out and spread just previous to plowing for corn. But, we certainly shall not, and have not, spread any manure on side hills and sharp knolls where there might be danger of a serious wash during an early spring freshet.

We have visited many farms, in all portions of the State, where this same practice has been kept up for years. And the best results almost invariably have been from early hauling and spreading, direct from the stables, as fast as the manure was made, and under the conditions stated above.

Friend Cook's practice is to be recommended as the very best under the conditions as he finds them on his own farm. And we wish a host of other farmers closely patterned after such an excellent plan as liberally "bedding down" the barnyard, or that portion which furnishes a temporary foundation for the stable manure.—Ed.)

Solid and Reliable.

From cover to cover the new catalog of E. W. Reid's Nurseries at Bridgeport, Ohio, bears the stamp of plain, straightforward truthfulness. An impression of solidity and good taste is conveyed at first glance by its covers of sober gray. The Reid Nurseries have been known for years to be trustworthy and economical, and their trees have been grown with success in all parts of the country. Throughout their business career the owners of the Reid Nurseries have been guided by the sound belief that the confidence of their customers is of greater value to them than any immediate profit. The wisdom of these business methods is shown in the present catalog, containing the results of many years' work in the nurseries, every offer in which is backed by the reputation gained by years of conscientious dealing. This handsome catalog has in it hints for growers, both great and small, and anyone can get it by writing to E. W. Reid's Nurseries, Bridgeport, Ohio.

Larger Farm Profits.

The latest catalogue of Hensch & Dromgold, of York, Pa., is full of time-saving and money-saving suggestions, and descriptions of the latest improved farm tools, harrows, cultivators, planters, drills, etc. They are the largest manufacturers of Spring Tooth Harrows in the world. Of their patent riding wheel Spring-Tooth Harrow over 6,000 were sold in 1894. Although this implement was introduced so recently as 1895 its sale has increased so immensely that during 1898 it promises to be the harrow in almost universal use. This catalogue, which is sent free on request, will be found helpful in studying how to increase the profits on farming by decreasing expenses.

Extra Fine Butter Making.

At the Vermont Butter and Cheese Makers' Association Convention, held at Montpelier, the 3d and 4th inst., at which there were 75 entries of butter, R. F. Jaynes, Superintendent Ryegate Creamery, had butter that scored 98½ points, the highest of any, but, owing to the rules of the Association, that no officer could receive a premium, Mr. Jaynes is the Treasurer—the sweepstakes went to butter scoring one point lower, 97½; but Mr. Jaynes received \$35.00, the premium offered by the Vermont Farm Machine Co., for the best butter, provided the cream was separated by the Improved United States Separator.

Mrs. Carrie J. Nelson, who carried off the First Premium on Dairy Butter, also used an Improved United States Separator. In this connection it is worthy of remark that at the Vermont Dairymen's Annual Convention, held at St. Albans, in January last, the Creamery Sweepstakes, Grand Sweepstakes and Gold Medal went to E. E. Symes, Superintendent No. Ryegate Creamery, who also uses an Improved United States Separator; the First Premium on Creamery prints went to F. L. Smith, Proprietor Cloverleaf Creamery, Fletcher; and First Premium on Dairy Tubs to H. I. Clapp, Barre, both of whom use the Improved U. S. Separators.

The Vermont Farm Machine Co. is to be congratulated upon the remarkable success of the above named separator.

BEST SUGAR BEETS

are grown from best seeds; we have them. Address AUGUST ROLKER & SONS, 62 Dey St., New York.

SUGAR BEET GROWERS, ATTENTION! To get seed in right is the main point. To do this you want a Sureseed Hand Drill. For description, price, etc., address R. HOODLESS, Vassar, Mich.

STANDARD WIRE FENCE. \$5 to \$8.50 for Machines to weave fence, at 12c. to 25c. per rod. Strongest endorsements. Send for list, pamphlet. Unparalleled chance for agents. Also wire tighteners & tension springs. **STANDARD WIRE FENCE CO.,** Canandaigua, N. Y.

SAVE YOUR MONEY

by buying your FENCE DIRECT FROM THE FACTORY AT WHOLESALE PRICE—FREIGHT PAID. That's the only way to save money. **ADVANCE FENCE.** It is as good as the best woven wire fence made and this plan of selling it makes it cheaper and better in every way than the use of any hand fence machine made. It is all interwoven—there are no loose ends. The wires can not slip. It can not kink or sag; and takes up its own expansion and contraction. Don't buy until you get our new circulars and special discount to farmers. **ADVANCE FENCE CO.,** 6 OLD ST. PEORIA, ILL.

CABLED POULTRY AND GARDEN FENCE. Cabled Field and Hog Fencing with and without lower cable barbed. Steel Wire Picket Fence for Lawns and Cemeteries. Steel Gates, posts, etc. **DE KALB FENCE CO.,** 62 High St., DE KALB, ILL.

The twist in what makes the Kitesman Fence so strong. With our Duplex Automatic Machine you can make 100 styles and 60 rods per day of the Best Woven Wire Fence on earth. Horse-high, Bull-strong, Pig-tight. **FOR 18¢ PER ROD** Chicken fence 16c. Rabbit-proof fence 16c. and a good Hog fence for 12c. per rod. Plain, Galvanized Spring and Barbed Wire to farmers at wholesale prices. Catalogue FREE for the asking. Address: **KITESMAN BROTHERS, Box 27, Ellettsville, Indiana.**

PERFECTION WIRE FENCE. Made of best steel wire! Is the heaviest, strongest and cheapest. **FARMERS!** We sell our fence direct. Send for FREE Sample and Prices at once.

This cut shows EXACT SIZE of wires used. **WITHINGTON & CO.,** ADRIAN, MICH.

YOUR CLAIM is a Klondike if fenced with The Page. **PAGE WOVEN WIRE FENCE CO.,** Adrian, Mich.

FENCE AGENTS WE HAVE SOMETHING which will aid you in your business. Write. **Bond Steel Post Co., Adrian, Mich.**

THE YANKEE FIRE-KINDLER Burns 100 times with 2c. of oil. No kindling. Warms and burns rapidly. **YANKEE KINDLER CO.,** 91 N. E. St., New York.

Live Stock.

CONDUCTED BY ROBERT GIBBONS.

Address all correspondence to MICHIGAN FARMER, Detroit, Mich.

For The Michigan Farmer.

CANNIBAL SOWS AND WOOD-CHUCKS.

As the time for sows to farrow is now near at hand, I would say that I have discovered a sure way to keep them from eating their pigs. This is not a mere temporary cure for the time of farrowing just to come, but will surely break up the habit permanently. I also claim to be the originator of a simple plan to get rid of woodchucks.

The great craving for some animal food is thought to be the reason why sows sometimes eat their young, and the "pound of salt pork" treatment has heretofore been the standard remedy for this tendency. Now I never have tried this means of prevention, but as I have seen sows begin to eat their pigs and then stop after they had eaten two or three, without any pork being given to them, I conclude that perhaps this method of treatment has been credited with some cures that it is not entitled to. However, as this kind of medicine is cheap and easy to procure, I think it wise to feed a small quantity of either pork or some other kind of meat to a sow that shows this disposition. Now as to the "sure cure" mentioned above: Last April, having a fine large sow soon to farrow, we thought it a good plan to feed her a dead sheep, that her craving for flesh might be gratified and her pig-eating propensity removed. The plan worked finely. The hog seemed to enjoy the feast very much. In about twelve hours she had eaten the whole carcass except the bones. In about twelve hours more she had the stomach-ache real bad, and at the end of a like period of time she was dead. So you see that this treatment not only kept the sow from eating her pigs this time, but also that the cure was permanent and final. I have not secured a patent on the above method, and all members of The Farmer family are at liberty to use it if they wish. I have since learned from the experience of others that like results are likely to follow the feeding of unlimited quantities of mutton to sows well advanced in pregnancy.

Now I will tell you how to get rid of woodchucks. We made a grave for the aforesaid lamented Mrs. Hog by enlarging a woodchuck hole, and the chuck was so disgusted with the character of the neighbor we gave him that he left for parts unknown, so you see that the question of how to dispose of woodchucks is very simple—just bury a dead hog in each hole on your farm and success will crown your efforts along this line. As soon as I get things in shape I expect to use the above plan until every chuck is driven on to the next farm west.

There are a few things connected with our uncertain calling that we thought we were sure of. One of these was that seasoned posts would last longer than green, but a recent discussion in The Farmer seems to throw doubt around this question, and now it becomes my painful duty to dispel another fond delusion, which is, that a hog knows enough not to eat too much. If things keep on going at this rate we will soon have nothing that we can be sure of except that reliable old couple, "death and taxes."

Calhoun Co. C. D. SABIN.

For The Michigan Farmer.

WHY SOWS EAT THEIR PIGS.

Having been a reader of The Farmer for a number of years, and after seeing in its columns items pertaining to this subject, have concluded to give you a bit of my experience. Several years ago, while living in Ohio, I had a sow that brought me a fine litter of pigs; when they were a few days old I began to miss one every night. I would search her nest but could never find it. One day I reported my loss to a neighbor; his reply was, "Your hog needs salt." I gave her salt, and saved the rest of the pigs. From that time to the present I begin to feed my brood sow, about ten days before farrowing, a warm bran mash with some salt in it, and have never had a sow eat her pigs since. This course of treatment prevents feverishness and disordered digestion, fits a sow for the ordeal of farrowing, and does away with the "pure cussedness" which is often maliciously applied to an old mother hog,

because her owner does not know enough to give her a little salt. If friend Cowdrey would give his sows salt, and keep his pork in the barrel, the result would be just as good. No animal on the farm likes salt any better than the hog. If you do not believe, try it.

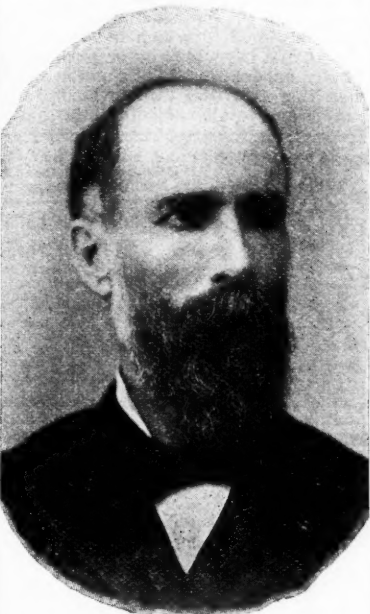
Eaton Co., Mich.

W. L. B.

MICHIGAN'S LIVE STOCK.

NOTED MEN INTERESTED IN ITS IMPROVEMENT.

Under this head we propose giving a short biographical sketch, with portrait, of each of the presidents of the various live stock associations in the State. To begin with we have taken the president of the State Association of Improved Live Stock Breeders, Hon. H. H. Hinds, of Stanton, Mont-



calm County. Mr. Hinds is a pioneer farmer and stock breeder in Montcalm county, and a well-known figure at gatherings of farmers and breeders of live stock. He was born in Susquehanna Co., Pa., in 1840, and with very limited educational advantages started out to make his own way in the world. In 1861 he enlisted in the Fifty-seventh Pennsylvania Infantry, as a private, and served to the close of the war, being discharged as captain. During his service he was three times wounded, was captured and kept a prisoner for a year and eight months, part of the time being under the fire of our own guns at Charleston. His health was badly shattered when he left the army, and he came west to Michigan, settling at Stanton, and engaging in the lumber and mercantile business. There he and his family have lived ever since. He was a pioneer in utilizing the land after the pine had been cut off for agricultural purposes and cleared the first land in the vicinity of Stanton for a crop. He utilized the pine stumps for fencing a good deal of his land, having now about ten miles upon his farm of over a thousand acres within and around the corporate limits of Stanton. Twenty years ago he began breeding Shorthorn cattle, and still maintains his herd, taking a lively interest in this breed. For years he has kept a large flock of grade sheep on his farm, and at one time he had a flock of registered Merinos. These he has changed for registered Shropshires, of which he has a large flock, and is an official of the American Association. He also breeds Poland-China hogs, grade Percheron horses, and standard bred trotters. He is also a large feeder of cattle, sheep and hogs, following western methods in the feeding and care of the stock. His extensive corn crop is fed out to cattle, in the open field, and his fattening hogs follow them. He aims to do everything with as little expense for labor as possible.

At the Columbian World's Fair Mr. Hinds was chief marshal, and also one of the Dairy Commission. He had charge of the Shorthorns in the dairy test, and how well he performed his various duties is a matter of record. From the day the fair opened until its close he never was absent from the grounds during business hours, and the manner in which he selected and managed the Shorthorns in the dairy test proved him emphatically the right man in the right place. The results he obtained no doubt had much to do with the revival of interest in that great breed in the dairy states.

Mr. Hinds has been honored politic-

ally as well as by the various associations to which he has belonged. He has been elected to office in every association to which he belongs—has been president of the State Shorthorn and Shropshire Sheep Associations, vice-president of the Michigan Merino Association, has been president of the State Live Stock Sanitary Commission since its organization, an official of the State Agricultural Society, and a member of the executive committee of the State Grange. While well along in years Mr. Hinds has preserved in a wonderful degree the feelings and sympathies of a young man. He is very active mentally and bodily, a quick and clear thinker, and a strong advocate of his views on any subject in which he is interested. He has a large number of warm friends and admirers among the live stock breeders of Michigan, and they always insist upon availing themselves of his abilities.

WANTS FAIR PLAY FOR THE CALF.

To the Editor of The Michigan Farmer:

In the paper read by D. Foley at the Farmers' Institute at Smith's Creek, I think he was trying to pull the wool over our eyes. With \$198 worth of sheep there was at the end of twelve months a profit of \$73.64, or \$6.13 a month. At the end of 17 months (the time the calf was kept), there would be a profit of \$114.21. What sheep a man can keep—and keep well—are all right. We keep sheep as well as calves, but I am not tired of that calf, as Mr. Foley was afraid we would be, for I am going to show by his figures that the calf, or calves, were the most profitable. There was a profit on the \$3 calf at the end of 17 months of \$5.69. Now that \$198 worth of sheep would have bought 66 calves at \$3 each. The profit on 66 calves would be \$374.88; profit on \$198 worth of sheep, \$114.21; leaving \$260.67 in favor of the calves, saying nothing about the extra work.

Genesee Co., Mich.

C. A. S.

LUMPY JAW IN CATTLE.

J. E. M., Saginaw, Mich.: Some years ago, when lumpy jaw was quite common and every one was afraid of it, we published articles giving full particulars of the disease, and the only remedy yet discovered that is at all certain. The first symptoms of the disease is a small lump on the lower jaw, which grows gradually, becomes quite large, breaks, and discharges matter, the surface of the lump, or tumor, becoming raw and angry looking. Animals in this state are required by law to be destroyed. The State Live Stock Sanitary Commission, of which H. H. Hinds, of Stanton, is chairman, must be notified when an animal appears to be affected with this disease, and the members decide what must be done. The Commission has power to condemn and destroy the animal.

The only remedy yet discovered for lumpy jaw is iodide of potassium administered internally. It has always proved effective if administered before the disease has attacked the jaw-bone and caused it to become porous. The iodide of potash or potassium is given in doses of about one dram to every 400 pounds weight of the animal. These dram doses are to be given once daily for a week or ten days, then omitted for two or three days, and if a cure is not effected, must be repeated until it is. The iodide can be mixed with water so as to be given more easily, and it appears to be more effective when given in the morning before the animal is fed. If the dose being given is too heavy for the animal, it will show symptoms of iodism, the appetite will be lost, the eyes will water and the mucous membranes of the nose and throat will look as if the animal was suffering from catarrh. When these symptoms appear, stop giving the iodide for two or three days until they disappear, and if it has to be given again reduce the dose.

As to the disease being contagious or not, the veterinary profession usually hold that it is not. Those who have had diseased animals in their herds insist that it is, and we think it is safest to so regard it, and quarantine the animal diseased while it is being treated, and until it is completely cured.

STOCK NOTES.

W. W., Ashland, Mich.: To stop the growth of horns on calves get a stick of caustic potash from your drug store, wet the end of it, and rub it over the horns of the calf as soon as they show

through the skin. Be careful and not allow the caustic to touch the skin, as it will raise a blister.

C. T., Whitefeather, Mich.: In answer to your question as to best time to dehorn would say the present is as good as any. Except in the heat of summer when flies are plenty, any time of the year will do. Your other question you will find answered in this same column.

Regarding the very prolific Duroc-Jersey sows that Mr. Thunder wrote about, he says the total should have been 28 pigs, instead of 32 as he reported. The number credited to each sow was correct, but in adding the numbers together the mistake was made. Then the compositor made the mistake of using a "P" instead of a "T" in Mr. Thunder's name, for which we offer an apology.

Does its Work Every Time.

WILMINGTON, DEL., April 5, 1896.

I found out the virtue of the Balsam and have used 2 bottles. I think it one of the finest remedies one can keep around a stable. It is always ready for use, and I believe if properly applied and rubbed in, will do its work every time. I have used different kinds of liniments, but this does its work quicker than any I ever used, and after all, leaves no scar, and the hair grows in same as ever. You can use my name whenever you see fit.

H. C. PARRISH.

25—Shorthorns—25
One to six years old.

20 Females, 5 Young Bulls.

They are the kind that will do you good.

SPECIAL PRICES FOR THE NEXT 30 DAYS.

WE MEAN BUSINESS.

Parties met at depot by appointment.

W. E. BOYDEN, Delhi Mills, Mich.

Clydesdale Mares.

Five Pure Bred Mares from 8 to 2 Years Old, bred from stallions and mares imported by O. W. Parsell, of Flushing. These are choice animals, and only sold to close out the business. They can be bought at very reasonable prices. Address R. E. PARSELL, Flushing, Mich.

INCUBATORS. Latest, Best and Cheapest Out Ligonier, Indiana.

EGGS from Blue Andalusian exclusively. The handsomest fowl of the feathered class. Non setters. Send for cir. J. R. Steltz, Cudahy, Milwaukee, Wis.

SAVE YOUR CROPS
Get rid of Gophers, Ground Squirrels, Prairie Dogs, Mole & Rats and all burrowing animals BY USING
PEERLESS GOPHER KILLER.
Costless than 1c. to treat each burrow and IT GETS THEM ALL—old and young, within 5 minutes. They never dig out. No poison. Big increase in profits if used during plowing and planting season. Circulars, prices, and terms to Agents, Free. J. G. H. Lee Co., 1100 Farnam St. Omaha, Neb.

TOP BUGGY FOR \$22.75
Also COLUMBIAN BUGGIES for \$39.90. Road Wagons, \$16.50; Phaetons, \$37.50; Surreys, \$42.75. You don't pay for them until after received. Everything in Buggies, Carriages, Harness and Saddles in our Free Vehicle Catalogue. Send for it. **SEARS, ROEBUCK & CO., (Inc.) CHICAGO, ILL.** (Sears, Roebuck & Co. are thoroughly reliable.—Editor.)

FIRST QUALITY IN ALL LINES.

Fairbanks Standard Scales...

FAIRBANKS-MORSE Gasoline Engines
Stationary and Portable.
ECLIPSE (Wood Wheel)
FAIRBANKS (Steel Wheel)

Windmills, TANKS, PUMPS, PIPE, VALVES, Etc.

Fairbanks, Morse & Co.,

Chicago	Indianapolis
St. Paul	Louisville
Minneapolis	Cincinnati
St. Louis	Cleveland
Kansas City	San Francisco
Denver	Los Angeles
Omaha	Portland, Ore.

The Horse.

CONDUCTED BY ROBERT GIBBONS.

Address all correspondence to MICHIGAN FARMER, Detroit, Mich.

HIS OPINION OF AMERICAN HORSES.

A. Van Schelle, secretary of the National Association of Belgian Horse Breeders, has been sent to this country by the Belgian government to investigate and report on American horses. He has written a letter to the Breeders' Gazette stating his opinions very frankly of the various classes of horses he has seen. What he says is of great interest to horse breeders generally, and we give some extracts from his letter:

"I have found that your thoroughbred horse is certainly not inferior to any horses of that class I have seen. I have found them in this country with more bone and strength than elsewhere, and in my opinion the stronger class of your thoroughbred will make the most splendid cavalry horse that can be found. As a hunter and a saddle horse I would recommend him; he is nearest like the Irish hunter, and every cavalry horse in Belgium and Holland is an Irish hunter imported direct from Ireland; the price paid by the Belgium government is \$230 for four-year-olds and five-year-olds, while the smaller number required for Holland are bought as three-year-olds at \$250 per head. Ireland cannot produce horses enough for the English cavalry alone. Where shall the Continental countries find their supply of cavalry horses in time of war if that market is closed to them? My observation here leads me to conclude that suitable remounts can be found in America. Both France and England have sent representatives here to investigate the situation. Gen. Favoret came from France and Gen. Ravenhill from England, but the latter confined his investigations chiefly to Canada."

Referring to the Kentucky saddler, he says:

"These horses are very smooth and round, but we like the hunter type a little better—wider at the hips and short-backed, as though to carry heavier weight. As to the Kentucky gait we do not care for them at all; they would be objectionable if the horses were intended for sale in a continental market. But then we do not ride thirty miles a day. Your people are better horsemen than ours; our people ride in style, in form, according to the instructions of the riding masters, but in the management of the horses they are not as skillful as Americans. I have seen the riding-schools in France, Germany, Austria, Holland, England and Belgium, and I must say that the riding of the troop of United States cavalry, under command of Lieut. Short at Fort Meyer, Washington, has never been equaled by an exhibition of horsemanship that I have ever seen, not even in a circus. I do not think that any country in the world could equal America in time of war in its trained cavalry for perfection of evolution and for endurance."

"You remember that the proprietor of Eclipse offered to bet that he could place every horse in that historic Newmarket race, and when called on to do so he said: 'Eclipse first, the rest nowhere.' Well, that is what I think of the American trotter. He is not equaled as a light-harness horse. When I was in this country twenty years ago nobody ever dreamed of the production of the two-minute horse, but he has come. There is very little market for the trotting horse in Belgium. Our roads are paved with large porphyry and granite stones and a horse's hoofs could not stand the strain of fast going; they would lose their shoes after a mile and their feet after a day. Besides the carriage would go to pieces. Then our carriages are much heavier than yours."

"If your farmers wish to produce horses to sell in Belgium they should try to make them as near the English type as possible. I would recommend as a cross on your trotting-bred mares to produce carriage horses, first the Yorkshire type of Hackney; second, the French Coach, and third, the Oldenburg or German Coach. Your people must not make the mistake of a violent cross between the trotter and the cart horse, because these types are too widely different."

Referring to draft horses, Mr. Van Schelle says:

"I am just beginning to study your draft horses and am hardly in a posi-

tion to write on that subject. I am now engaged in an examination of your breeding studs of Belgians, Percherons, Clydesdales and Shires, after having inspected the consignments of draft horses to the Chicago market. I have seen Shire, Clydesdale, Percheron, Belgian, and Boulonnais horses being bought there for export and the number of the animals exported is rapidly increasing year by year, which seems to speak in their favor. None of your cart horses have been sent to our country yet, as exporters have been taking over chiefly busers, vanners, and trammers. We have had only a few electric street cars—or trams—and most of our trams have been drawn by horses, but now electricity is pretty generally displacing horses on our street cars. American horses are very well liked for our trams and busses."

SUNFLOWER SEEDS FOR HORSES.

To the Editor of the Michigan Farmer.

In answer to P. A. Gilroy's inquiry in regard to sunflower seed as a condition food for horses, I would say I have found it just as valuable for such purposes, not only for horses but all stock and fowls, as linseed in any form. The objection to raising it in this climate, is the trouble of getting the heads dry enough to store in large amounts for threshing. The heads should be broken down like broom corn, and remain on the stocks until dry. The ease of raising is greatly in their favor; in fact on much land in the West they propagate to such an extent that they become troublesome—a weed—growing most thriftily in the driest season.

Manistee Co.

W. K. S.

HORSE GOSSIP.

There will be no running races at the Grosse Pointe track this season. The runners will go to Highland Park.

The Thornton stakes, four miles, recently ran for at San Francisco, proved a very popular race. It would be a good thing for the American thoroughbred if there were more races of from two to four miles.

Last year France appropriated \$435,755, Germany \$961,000, Austria \$850,000, and Hungary \$160,000 in aid of their horse-breeding interests. In addition to the amount noted above the French government has contributed about \$500,000 for premiums at exhibitions.

J. Crouch & Son, of Lafayette, Ind., announce a large lot of imported Oldenburg German coach stallions, Black Normans and French coach stallions. A fine lot to select from, and the owners say they will be let go on easy terms. See advertisement on this page.

The trotting stallion Warlock, by Belmont, out of Waterwitch, for which the late S. A. Browne, of Kalamazoo, paid \$15,000, sold recently at auction for \$130. He had two new 2:15 trotters to his credit last season—Ackerland, 2:13½, and King Warlock, 2:14½. Warlock was a fine individual in his younger days.

The fight over the rule declaring horses wearing hoppers ineligible to start in speed contests after next January is becoming quite warm. Those who have horses which must wear hoppers, and associations which are looking for entry money, are against the rule. The other fellows think hoppers are a public nuisance and should be abolished. It is a question of which side their money is on.

W. J. Spliers, well known on the turf, has been suspended in California because of the peculiar running of his horses. Formerly Mr. Spliers was a reverend, and pastor of St. Joseph's Memorial church in this city, and married Mrs. C. R. Mabley, widow of the late C. R. Mabley, in 1886. He left the church, went on the turf, was divorced from Mrs. Mabley, and is now a regular follower of the turf. His suspension caused a mild sensation among those conversant with his early history.

The English journals announce the sale of a ten-year-old thoroughbred gelding called Manifesto, for £4,000, about \$20,000. The price was paid because he was the favorite for the English Grand National Steeplechase. If he should be beaten the purchaser would not only lose about all he paid for the horse, but the large sum he must have wagered on his winning, which led him to pay such an enormous price for a gelding. The buyer must be a gambler of the most pronounced type.

Here is a ration recommended for a colt six months old and weighing from 300 to 500 pounds: It should have from eight to twelve pounds of

dry substance per day, and this should have a nutritive ratio somewhere between 1 to 5 and 1 to 6.5. Such a ration might be made up as follows: Six pounds clover and timothy hay mixed; two pounds oats; two pounds bran; five pounds carrots. The average colt is likely to get a few ears of corn, a chance to run around a straw-stack, and the refuse hay or corn-stalks from the cow-stable. If it gets more than this it is because it has learned to forage for itself.

A writer in the Country Gentleman says that often a colt fails to thrive the first winter because it is unskillfully weaned. The mare and foal run together during the summer, and as the mother's milk fails toward autumn, the colt eats more and more of innutritious, watery and frosted herbage. When the two are brought up at the beginning of winter, the colt is separated from the mother and put at once upon dry food to which it is unaccustomed, and for which its grass diet has wholly unfitted it. It is small wonder then that it grows thin in flesh, long haired, and totally dejected.

WHEN WRITING TO ADVERTISERS

Please mention that you saw their advertisement in the MICHIGAN FARMER.



Lafayette Stock Farm.

We are the largest importers of the Oldenburg German Coach Stallions in America. Our new importation arrived in '97. Large line of Black Normans from 1,800 to 2,000 lbs. Big trotting Stallions and French Coach Stallions. Terms easy to good parties.

J. CROUCH & SON, Prop., Lafayette, Ind.

Horse Owners Should Use GOMBAULT'S

Caustic Balsam

The GREAT FRENCH VETERINARY REMEDY
A Safe, Speedy and POSITIVE CURE.



Prepared exclusively by J. H. Gombault, ex-Veterinary Surgeon to the French Government Stud.

SUPERSEDES ALL CAUTERY OR FIRING
Impossible to produce any sore or blister. The safest and most BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Blisters or Blemishes from Horses or Cattle.
As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, Etc., it is invaluable.
We GUARANTEE that one tablespoonful of this Caustic Balsam will produce more actual relief than any liniment or ointment ever made.
Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by Druggists, or sent by express, collect, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address
THE LAWRENCE-WILLIAMS CO., Cleveland, O.

EVERGREEN STOCK FARM.—Black Percherons, French Draft and French Coach Stallions for sale. Special attention is called to our imported French Coach Stallions. Send for catalogue and descriptions. We also have carriage horses and draft horses for sale. Come early and make selections.
THOMAS CROSS, Bangor, Mich.

PUBLIC SALE of 26 Head Shorthorns

At the Allen Stock Farm, Allen, Mich., On Wednesday, April 13th, 1898, 9 good, young bulls ready for service, some herd headers, and 17 females representing both beef and milking strains. Will also sell about 20 head American Merino ewes of Mich. register. Sale at 2 p. m. No postponement on account of weather. Write for catalogue.
T. M. SOUTHWORTH & SON, Allen, Hillsdale Co., Mich.

McLAUGHLIN BROS., COLUMBUS, OHIO.

We have imported more stallions from France since 1893 than all others combined. Write or call on us if you want the best of either

French Coachers or Percherons.

ELMWOOD STOCK FARM, The home of American bred

PERCHERONS.
Registered stallions and mares. Grade mares and geldings weighing from 1,500 to 1,800. Matched teams.
HENRY C. WALDRON, Worden, Washtenaw Co., Mich.

DOGS FOR SALE.—Sporting and Pet Dogs: Pigeons, Rabbits and Hares. See catalogue.
C. L. B. LANDIS, Bower's Station, Berks Co., Pa.

STOCK FARM FOR SALE.

One of the best farms in State of Michigan, containing 1,300 acres; 900 acres improved; good and ample buildings; six flowing wells and river; 8 miles from market in good county. Must be sold to close business of corporation. Is offered dirt cheap. Write us for full particulars.

UNION ABSTRACT CO., Saginaw, W. S., Mich.



ARTICHOKES THEMSELVES
Prevent Cholera.
No. 1 for all Stock. Before buying send yours and neighbor's names for FREE ESSAY on kinds, culture, yield (often 1,000 bu. p. a.), with prices and fr. rates to all points. Single bu. \$1.
J. P. VINSERKE, Box 91, Alton, Ill.

BREEDERS' DIRECTORY.

CATTLE.

CLOVER BLOSSOM FARM ABERDEEN-ANGUS CATTLE. Kinde, Mich. 10 choice bred bulls for sale. Largest herd in Michigan. **JAS. H. HALL.**

J. F. & E. W. ENGLISH, Clarksville, Mich., breeders of registered RED POLLED CATTLE. Olney and Sultan head the herd.

J. M. CHASE, Muir, Mich., breeder of Red J. Polled Cattle and Poland-China swine. Choice young stock for sale. Prices right.

SHORTHORNS and POLLED DURHAMS. Four young bulls for sale. Correspondence solicited. **M. R. FREEMAN & SON, Flushing, Mich.**

REGISTERED SHORTHORNS FOR SALE.—3 young bulls, 6 or 8 young cows. Young Mary & Phyllis families, bred to Peri Duke 5th. **MINOR DAVIDSON, Tecumseh, Mich.**

A PURE-BRED Holstein heifer calf a few months old, nicely marked, fine points, and superior breeding. Also young Poland-Chinas, Black U. S. strain. Prices reasonable.
B. F. THOMPSON, Detroit, Mich.

SHEEP.

REGISTERED RAMS AND EWES FOR SALE at Rambouillet, U. S. A. **THOS. WYCKOFF,** importer and breeder, Orchard Lake, Mich.

SHROPSHIRE HALL STOCK FARM.—Special prices on 75 choice registered ewes, all bred to imported rams and 30 choice ewe lambs, to make room for this season's second importation, to arrive in January. Also a few choice Polands and Berkshires sows and boars. State agent for the Black Diamond Sheep Dip, the best dip on the market to-day. I have tried them all. **L. S. DUNHAM, Concord, Mich.**

SHROP. EWES bred to high class rams. Better than Klondyke gold. Write at once for price list.
A. H. FOSTER, Allegan, Mich.

HOGS.

CHESTER White Swine and Lincoln Sheep. Either sex and all ages for sale. Sows bred for spring farrow. Write **A. H. WARREN, Ovid, Mich.**

FOR SALE.—Large Poland-China sows, bred to Model Wilkes, Vol. 20, for Mich. and April farrow. Prices reasonable. **F. M. PIGGOTT, Fowler, Mich.**

MERCHANT KELLY, Woodstock, Mich., breeder of LARGE ENGLISH BERKSHIRES. Pairs not akin for sale cheap.

R. M. CROSS, Ovid, Mich., breeder of Victoria swine. Stock for sale. Breeding stock recorded. Reasonable prices. Correspondence solicited.

THE PLUM HILL HERD of large English Berkshire swine, B. P. Rock and S. P. Hamburg fowls. Stock and eggs for sale. **C. M. BRAY, St. Johns, Mich.**

POLAND-CHINAS.—10 sows bred for March and April farrow. Sept. boars bred give place to the pig crop of '98. Shipping point Lansing or Grand Lodge. **L. F. CONRAD, Wacousta, Mich.**

LARGE ENGLISH BERKSHIRE SWINE of the best strains for sale. Write for breeding and prices. **C. E. PAITHTHORP & CO., Mt. Morris, Mich.**

LARGE ENGLISH BERKSHIRE SWINE, highly bred, from leading families. Write for prices. **V. E. HACKNEY, Mt. Morris, Mich.**

DUROC JERSEY SWINE. Spring and fall sexes. **H. D. HALL, Martin, Mich.**

POLAND-CHINAS.—Two spring and 8 fall boars for sale; 4 choice sows to farrow in April. Prices right. Address **WM. L. PENNOCK, Hastings, Mich.**

ONE-HALF of Village View Herd of P. C. swine, consisting of 11 brood sows and 10 fall pigs. I will sell cheap. It will pay any breeder or farmer to see me. **J. C. TAYLOR, Grass Lake, Mich.**

POLAND-CHINAS.—A few choice young boars. A grand lot of sows bred to the champion young boar "Chief Hidestretcher" and "Wilkes Tecumseh." (Vol. 20, O. rec.) **L. W. BARNES, Byron, Mich.**

N. A. CLAPP, WIXOM, MICH., BREEDER of Large English Berkshire Swine. Write for prices.

GRAND RIVER HERD OF O. I. C.

JOHN BERNER, Prop., Grand Lodge, Mich. My stock comes direct from L. B. Silver Co. Write for prices.

FOR SALE. **DUROC-JERSEY PIGS;** E. P. R. Cockerels; Pekin Ducks. Eggs for hatching. **J. H. BANGHART, Lansing, Mich.**

FOR SALE from my great prize-winning herd of registered O. I. C. swine. Twelve extra fine boar pigs old enough for service. First man sending draft for \$12 gets the choice. **G. S. BENJAMIN, Portland, Mich.**

Hastings Stock and Poultry Farm, breeder and shipper of Poland-China swine, B. P. R. chicks. Write for bargains.
WILLARD PERRY, Hastings, Mich.

Special Sale of Chester Whites at CASS VALLEY FARM. Lot of fall and spring pigs, dandies, at ½ their value. Write to-day and secure a bargain.
W. W. BALCH, Deford, Mich.

PRINCE U. S. heads my herd of Poland-Chinas; he by Corwin King 1871; dam by Quality 12457. Sows bred, for sale, fall pigs of River's Model, Tecumseh and Black U. S. strains. Also Light Brahma chicks.
E. D. BISHOP, Woodbury, Mich.

SPRING litters are coming and we must have room. Bargains in P. C. SOWS bred for April and May farrow to ideal chick. Also fall boars and B. P. Rock cockerels.
A. A. WOOD, Saline, Mich.

First Premium Herd of Poland-Chinas. Sows to King Kiever for sale. Also some fall pigs. Wrote over one-third of the premiums offered at Mich. State Fair in '97, winning all the firsts on pigs, 8 herds competing. **E. J. & L. HARRINGTON, Paw Paw, Mich.**

W. O. WILSON, Okemos, Mich., proprietor of the Michigan Central herd of **IMPROVED CHESTER WHITES.** Choice pigs of March and April farrow, either sex and pairs not akin. Write me just what you want. Light Brahma cockerels at \$1 each.

Sheep and Wool.

CONDUCTED BY ROBERT GIBBONS.

Address all correspondence to MICHIGAN FARMER, Detroit, Mich.

MERINOS IN MICHIGAN.

In the general improvement in the value of sheep in this State the Merino has probably led all the other breeds. This is so because they had practically become valueless, or were so regarded by many stock-growers and farmers. The mutton breeds had proved fairly profitable to many, and their value was better maintained during the four or five years of depression suffered by the industry. It is, therefore, pleasant to be able to say that the sheep industry in this State is in a flourishing condition, and that all breeds have been helped more or less by the improved feeling that exists, as evidenced by the demand for good sheep and the sales being made by breeders to farmers and flock-owners.

Last week while on a visit in Oakland county, we stopped at the farm of H. E. Moore, of North Farmington, to see his flock of American Merinos, as we had learned that several head had been selected from this flock for shipment to Australia. It is one of the few flocks of Merinos in the State which have been maintained at a high standard, and not always at a profit. What we wanted to know was the class of sheep selected for the Australian trade. We knew Mr. Moore's flock was one of the very heaviest fleeced in the State, the staple of good length, very dense and carrying a good deal of buff oil—what is generally called a strong fleece. The first question asked Mr. Moore was what style of sheep did the exporter select, as we knew that was a point our breeders would be most interested in knowing. Mr. Moore said the four head selected—a two-year-old and a yearling ram, and a two-year-old and a yearling ewe—were what he regarded as his best sheep, with dense, heavy fleeces, with plenty of oil, good length of staple, quite wrinkly and woolled all over, especially on the backs and bellies. "They were just the type of sheep I had always heard the Australians did not want, as they were too heavy and not fine enough. Even jarre, or coarse hairs on the top of the neck folds did not appear objectionable if all right in other ways." In reply to another question, Mr. Moore said he received \$200 cash for the four head, the best ram being priced at \$75. "I priced them low because I wanted to have my flock represented in Australia," said Mr. Moore. "One of the rams I would not have taken double the money for from an American breeder." The ram referred to was H. E. Moore, 153, whose first fleece was 15 pounds, and second one 31 pounds 12 ounces, with a staple over 2½ inches. All the four head were bred by Mr. Moore. This ram was sired by H. E. M., 90, dam M. W. Shattuck 3, by P. E. Voorheis 120. The yearling ram and yearling ewe were by H. E. M. 149, a ram also sired by H. E. M. 90, and out of M. W. Shattuck 1, by G. L. Hoyt 194. To show that the exporters were not afraid of heavy fleeces, we may state that Mr. Moore's breeding ewes, 23 in number, averaged 21 pounds per head, and raised 19 lambs, and the entire flock, ewes, lambs and rams, 56 in number, averaged 19 pounds 12 ounces. He has now 38 breeding ewes, besides his lamb crop, except the four head sold, and it looks as if the flock would do better this spring. We have been thus particular in describing the sheep selected because so many breeders are taking such strong ground against the heavy fleeced wrinkly sheep, while the greatest wool-growers in the world, the Australians, are paying the highest prices for just such rams to breed on their flocks.

As the American Merinos seemed to be doing so well, we went over to Thos. Wyckoff's to see how the Rambouillet was faring. It was sheep everywhere on this farm, and where there was not room for a sheep there was a lamb, or a couple of them. Mr. Wyckoff said some of his ewes bred twice a year, and frequently had twins. The greater part of the flock were shorn, and their appearance, as compared with the smaller, more compact American Merino, was rather a surprise. They stand pretty high on the leg, with good bone, and it is undoubtedly these two points which make them favorites on the southern and southwestern ranges. They can be grown to large size, have the herding qualities of the Merino, and are evidently very active and good foragers.

Mr. Wyckoff said the demand for sheep this winter had been such as to about clean out all old enough to sell. He had sold to many of the southern states, and several carloads of rams had gone to the West and Southwest. He had gone out of cattle entirely, as it required all his time to look after his large flock.

At this farm we met Mr. Burnham, of Ohio, Secretary of the American Rambouillet Record, who was visiting a number of Michigan breeders. While a young man, he has had a long experience with sheep, and is an enthusiastic admirer of the Rambouillet. He spoke of the many advantages Michigan enjoyed in its soil and climate for sheep husbandry, and was evidently very favorably impressed with the flocks he had seen.

FEEDING BREEDING EWES.

When is the proper time to begin feeding breeding ewes a little grain? Would it be best to begin giving a little the first of December, or wait till the middle of February? What amount should a flock of 30 ewes have of corn and oats mixed, with plenty of clover hay? Should they have the grain once a day or twice?

CONSTANT READER.

Breeding ewes should have a grain ration at least once a day as early as December 1st. They should be maintained in good healthy condition, and rather gain in flesh than run down during the winter season. Corn and oats mixed is not the best ration for breeding ewes, especially where no roots are fed. If half the corn was omitted and its place filled with bran, we think it would be better for the ewes, especially at lambing time. About half a pound per day is a fair ration for a breeding ewe. That would be 15 pounds per day for your 30 head. You do not state the breed to which your ewes belong, so we are answering to some extent in the dark. An animal generally requires food in proportion to its weight, and there is a difference between a Merino ewe and a Lincoln or Cotswold. We think it best to divide the grain ration, and give half in the morning and half at night. Think it would be well to feed some corn fodder as a change from the clover, or a little good oat straw. In winter quarters a change in feed is very desirable, even if the substitute is not so good as the article it replaces. You should never allow your breeding ewes to become constipated. If they do, increase the bran ration, or add a tablespoonful per head of oil meal each day for a time. Keep plenty of salt always within reach of the ewes; it is a great regulator of the bowels.

THE ORIGIN OF THE MERINO.

From our Special English Correspondent.

Though the Merino sheep have for some centuries been cultivated in Spain this was not their original home as is supposed by many writers who have given their opinion as to what may have happened in former times. When historical facts are in existence it is much better to refer to these than to venture upon conjectures, and classical literature furnishes us therefore with the means of ascertaining the facts with respect to the Merino sheep. This breed of sheep is neither of Spanish nor Arabian origin, but came from Greece. The ancient Greeks had neither cotton nor silk and very little linen, but they had sheep, and consequently

wool, which latter furnished them with the material for their garments. As arts and luxuries were cultivated the desire for finer and more costly garments arose, and this stimulated the cultivation of finer wool. It was soon discovered that protection from the inclemency of the weather improved the quality of the wool, and the sheep were therefore in many instances covered with cloths to keep them warm. This extra attention was soon rewarded with success, for the wool of the sheep so cared for became finer and more silky, and with continued attention not only the wool but the breed was improved. One of the principal farms for a superior breed was at Tarent, on the sea coast. Like other Greek arts this art of cultivating finer wool passed from the Greeks to the Romans, who again carried it with them in their conquests, and amongst other countries to Spain, where, on account of the variety of climate, it soon assumed considerable proportions.

Cotunella, the greatest authority on Roman agriculture, tells us that his uncle, in Hispania, improved the Tarentine sheep with rams brought from North Africa, and thus obtained a renewal of strength which was leaving the breed, the wool acquiring the whiteness of the African ram, and the fineness of the original race. The improvement thus introduced made some breeds so valuable that some rams were paid for at the rate of £200, an enormous price at a time when money was considerably dearer than now. When Rome was conquered by barbarian hordes no one took an interest in the breeding of Merinos, and most of the advantages gained were lost in a short time. In Spain, however, the Moors cultivated the breed of sheep in the remote valleys, protected by inaccessible ranges of mountains, and thus laid the foundation for the renown which later on attached to Spain for the cultivation of Merinos. In course of time Spain became a powerful nation, with influence all over Europe, and paid attention not only to the preservation of the Merino breed but to its improvement by judicious crossing with sheep from other countries.

Yorks.

AGRICOLA.

FLOCKS AND FLEECES.

The Grattan Sheep Shearing Association will hold its annual festival at John Randall's farm, near Grattan Centre, Saturday, April 2, 1898. Picnic dinner in Grange Hall. All are invited to attend, and a good

time is anticipated. Jno. Cowan is president and Wm. J. McCarthy secretary.

G. W., Nashville, Mich., thinks the remedy for lice given in the veterinary department in a recent number, not a good one. He furnishes the following: For ticks and lice of any kind, or on any animal or fowl, get what are known as moth balls; have them powdered at the drug store, and sprinkle it into the fleece or hair of animals affected with lice. These moth balls sell at 15 cents per pound, and a pound will be sufficient for 30 or 40 sheep. This remedy can be applied at any time without danger. Two applications should be made, one a week or ten days after the other.

As showing the condition of the sheep-breeding industry in this State at present, we give the following from a note received from J. H. Taft, of Mendon, the past week: "Please discontinue my ad, as I am sold out of surplus Hampshires until after shearing; there has been a big demand, having sold 67 head of recorded Hampshires within the last year, for which The Farmer is entitled to a liberal share as an advertising medium. Sheep are wintering well, and young Hampshires are on deck this month, strong and active. The sheep business is in its glory, and a brighter prospect never was seen."

When writing to advertisers please mention Michigan Farmer.



SKAB CURE
Absolute

Improves the wool
Strengthens the
Sheep

Known to be the
Best Dip made.

(Nicotine is the Condensed Strength of Tobacco—without the bulk.) Used Warm for Scab, Cold for Ticks. \$2 per package, \$16 per case of ten packages. Case makes 2,000 gallons of Wash for Ticks or 1,000 gallons for Scab. We pay freight. Circulars free. Write at once.

SKABCURA DIP CO., Chicago.

To stick things use **MAJOR'S CEMENT.** Beware!! Take no substitute.

A Ten Acre Lot

Is a beautiful plot after being worked with a "Planet Jr." 12 tooth Harrow. It will cultivate it better than any other implement under the sun, and in half the time. It cultivates deep or shallow, wide or narrow; prepares the ground for seed, drilling and plant setting; has an attachment for cutting strawberry runners and a dozen distinctive features indispensable to the farmer and the berry grower. The "Planet Jr." Book for 1898 describes a score of tools belonging to the "Planet Jr." Family. It's a veritable revelation in labor saving devices and should be read by every man who plants for profit or for pleasure. Sent free to anyone anywhere. Will you have it?

S. L. ALLEN & CO., 1107 Market St., Philadelphia.

The Best General Purpose Grain and Fertilizer Drill,

THE OWEGO.

Simple, Accurate, Durable.

Easy to Adjust,

Easy for the Team.

FORCE FEED FOR GRAIN, GRASS SEED AND FERTILIZERS.

Fertilizer Distributors are Galvanized—will not clog or corrode.

Full description sent on application.

THE CHAMPION WAGON CO., Owego, Tioga Co., N. Y.

If interested in Farm Wagons send for Wagon Catalogue.

ZENOLEUM

...A...
Sheep Dip

that will effectually destroy Ticks, Lice, and other parasite pests, and which will cure Scab, Paper Skin, Gangrene, Grub, etc., without discoloring or injuring the fleece and without injury to animal or operator, deserves the attention and patronage of the shepherd.

ZENOLEUM

IS THE ONLY DIP

which possesses these qualities and the further advantage of being cheap. One gal. of ZENOLEUM makes 100 gallons of the best dip known to man. Use it either hot or cold.

Agent wanted in your locality, write or our special terms & circulars.

Zenner-Raymond Disinfect Co.
16 Atwater St. Detroit, Mich.

WE SELL DIRECT TO FARMERS.

FARMERS BE WISE, DEAL WITH US AND SAVE 40 PER CT. ON YOUR FERTILIZERS.

You Save Salesman's Expenses and Agent's Profit.

Analysis.	Phos. Acid.	Per cent.	Ammonia.	Actual Potash.	Per cent.	Price.
Pure Raw Bone Meal.....	22 to 25	4 to 5	.....	.....	.....	\$22.00 per ton
Four Fold Fertilizer.....	9 to 10	2 to 3	2 to 3	16 to 18	.....	16.00 "
Smoky City ".....	8 to 10	1½ to 2½	1½ to 2½	15 to 16	.....	15.00 "
Big Bonanza ".....	9 to 10	2½ to 3½	4 to 5	20 to 22	.....	20.00 "
Potato Special ".....	9 to 10	3½ to 4½	6 to 7	23 to 25	.....	23.00 "
Tobacco Special ".....	11 to 12	3 to 4	4 to 5	21 to 22	.....	21.00 "
Bone and Meat.....	12 to 15	4 to 5	.....	.....	.....	18.00 "

For samples and pamphlet write WALKER STRATMAN & CO. Herr's Island, Pittsburg P.

"ACME" PULVERIZING HARROW, CRUSHER & LEVELER

For all soils, all work.

Crushes, cuts, lifts, pulverizes, turns, levels the soil in one operation.

Cast steel and wrought iron—practically indestructible.

Cheapest riding harrow on earth. \$8.00 and up.

SENT ON TRIAL. To be returned at my expense if not satisfactory. N.B.—I deliver free on board at distributing points.

Agents: Millington, New Jersey.

DUANE H. NASH, Sole M'fr., (and 30 So. Canal St., Chicago.)

Grange Department.

Our Motto:—"The farmer is of more consequence than the farm, and should be first improved."

Address all correspondence for this department to

KENYON L. BUTTERFIELD,
AGRICULTURAL COLLEGE, - - MICH.

News from Michigan Granges is especially solicited.

A LESSON IN PATRIOTISM.

The heart of every true patriot has been warmed by the unanimous action of Congress, irrespective of party, in placing at the disposal of the President an immense appropriation for war purposes. Not that the nation loves war, but the fact that every personal and party difference has been sunk in the larger question is the reason why we are proud. Not only that, but the universal acknowledgement that the President is conducting himself as befits the head of this nation is the reason for further self-congratulation. The question that comes to us, on reflection, is, why cannot this sudden flame of patriotism become a steady fire? A year ago the President was harassed and hounded by office-seekers; at the same time windy congressmen, bidding for votes, stirred the passions of the people by arousing the war spirit. All these things have been superseded for the moment by a spirit of true patriotism. Now, we say, why cannot this spirit of true patriotism always prevail; why cannot men always, and as a habit, sink personal differences for the country's good? To do this would usher in the millennium. Yet we do believe that the lesson to be learned from this sudden display of patriotic fervor is that the self same spirit should always prevail among the people and among public men.

THE SPECIAL SESSION OF THE LEGISLATURE.

As all our readers know, Governor Pingree has issued a call for a special session of the legislature to convene March 22. It is well known that the purpose of the special session is to increase the taxes upon corporate property, more particularly that of railroads and telephone and telegraph lines. We do not, as yet, know the details of the measure to be proposed nor the exact nature of the plan to be followed; hence can make no intelligent comment. We believe, however, that the seasonable work at this time is that of conservatism. Unquestionably the reform proposed is along correct lines. There is such a thing, however, as going too far even in reform. It is possible to be unjust. We simply urge upon every member of the legislature to study this question most carefully in all its bearings, to do his duty without fear of political consequences, and above all to be absolutely just, both to the people and to the corporations.

TO CORRESPONDENTS.

We desire to congratulate correspondents from Subordinate Granges on the Grange news columns for this week's issue of The Farmer. At the beginning of the year we were obliged to edit nearly every report, in some cases pruning one-half or two-thirds. This week comparatively few have been edited, nearly all being put in practically as they arrived at the editor's desk. Those edited were in some cases too long or were not in good form. We believe that the Grange News column this week is the best lot of Grange news we have ever seen, and the correspondents of Subordinate Granges deserve the heartiest congratulations for their success in presenting to the Patrons of the State the essential features of Grange work in such a fine manner.

Two or three cases have come to our notice where correspondents of Subordinate Granges have complained to their Granges that their contributions to the Grange News did not appear. We would say that every bit of news received from every correspondent has been sent in for publication. In some cases these contributions have, as stated above, required severe pruning, and it is possible that the correspondents did not recognize the news items as their product. We have had to use our own judgment as to what was important and have left out the unimportant points, but we have never failed to use something from every report sent in.

GRANGE NEWS.

TO CORRESPONDENTS.

- (1) We want to hear from each Grange in Michigan at least once each month, oftener if possible.
- (2) We want news about your Grange which will show your progress and work.
- (3) We want the ideas, opinions and conclusions of your members on all of the important questions discussed.
- (4) Boil it down.
- (5) Mail at latest by Saturday noon, to insure insertion the following week.

NEWARK GRANGE, NO. 515.

on February 26 celebrated Washington's birthday with recitations, essays, and select readings.

Gratiot Co. R. J. K.
SOUTH DOVER GRANGE, NO. 720,
met March 5; conferred third and fourth degree on 3, after which fourth degree feast was served.

Lenawee Co. M. E. B., Cor.
ENSLEY CENTER GRANGE, NO. 544.

This Grange initiated two new members at its meeting March 12. The Grange also recently held a very successful social.

Newaygo Co. MINNIE HOLMES.
SILVER LAKE GRANGE, NO. 624.

At a recent entertainment receipts were \$15, and the subject of "Home Adornment" was intelligently discussed.

Grand Traverse Co. RUTH DAVIS.
MADISON GRANGE.

A Grange social was held at the home of Roy and Channing Beal, in Madison, on the evening of March 4.

Lenawee Co. E. W. A.
NORTH BRANCH GRANGE, NO. 607.

is still very interested in the contest. The evening of March 5 we entertained a number from a new Grange in Rich township. Several have been initiated the last month.

Lapeer Co. H. S. B.
FRATERNAL GRANGE, NO. 406.

As Grange is small, decided to meet at the homes of members for a time. March 4, at the home of Bro. Woodward, "Winter care of poultry" was discussed.

Oceana Co. MRS. LAURA GROVER.
ALLENDALE GRANGE, NO. 421.

held its regular meeting March 5. We meet every two weeks, alternately afternoons and evenings, so as to give the old a chance to attend. Conferred third and fourth degrees on three.

Ottawa Co. D. H. C.
COVERT GRANGE.

dead for some time, has been resuscitated, and is doing well. Meet the Friday evening nearest the full moon. March 4 had interesting reports from our three delegates to the State Round-Up.

Van Buren Co. V. H. RANDALL.
STONY CREEK GRANGE, NO. 51.

reorganized March 1. W. I. Moore is master, and Mrs. Lucy Gooding lecturer. Though the Grange has been dormant for years, the property and records had been carefully preserved.

Washtenaw Co. EMMA A. CAMPBELL.
OLIVE CENTRE GRANGE, NO. 652.

Weekly meetings are well attended. Have nine new members. A play entitled "Under the Spell," will be given soon; the proceeds to be used for a new carpet for the hall.

Ottawa Co. MRS. LEVI FELLOWS.
WOODMAN GRANGE, NO. 610.

had an interesting meeting March 5. A short time ago Bro. Rich, of Covey Hill Grange, gave a public Grange talk to a large audience here; he did us a great deal of good, and interested outsiders.

Van Buren Co. J. R. DAINES.
PLEASANTON GRANGE, NO. 55.

March 5 had one application. Discussed "The Annexation of Cuba." Grange pretty equally divided on the subject. At the next meeting we shall discuss "potato raising."

Manistee Co. IVY SHELTON.
ELBRIDGE CENTER GRANGE, NO. 711.

March 5 had a paper on "What we shall read," and also a talk on "The value of the initiatory work of the Grange." Several applications, and more coming.

Oceana Co. MILES BROWN.
PARMA GRANGE, NO. 710.

had its last meeting at the home of Bro. and Sister H. L. Foster. The question of buying binder twine and groceries was brought up, but not having prices from State Grange, nothing was done. We meet again April 13.

Jackson Co. E. S. MILLER.
ORANGEVILLE GRANGE, NO. 424.

February 18 had a corn social at Bro. Edgar Brown's; good turn out and fine time. March 4 had regular meeting; good attendance. Many of our members are suffering from grip, which lessens attendance.

Barry Co. F. W. LIVINGSTON, Cor.

MONITOR GRANGE, NO. 553.

March 8 conferred the third and fourth degrees upon a class of five. Three applications received. At roll call members responded with quotations.

MRS. JENNIE E. NUSCOTT, Cor.
Gratiot Co.
HURON COUNTY POMONA GRANGE

met with Hope Grange March 3. Large attendance. After dinner and business meeting came the regular program. Sister Ramsey read a paper on "Home Influence;" Bro. Buchanan, one on "The future outlook for the farmer." We also had report from delegates to the State Round-Up Institute. Closed by singing "Auld Lang Syne."

MRS. LAURA HUNT.
HUDSON CENTER GRANGE.

February 25 had a Washington program. Gave two degrees to two candidates. We have degree work at nearly every meeting. What is the matter with the traveling library? We applied for one last fall, hoping to have it for use during the winter, but never heard from it.

Lenawee Co. H. C. V.
STEBBINS GRANGE, NO. 700.

initiated two brothers in the third and fourth degrees March 12. Subject discussed, "Ornamentation of Homes." By all means plant trees, but not tall, heavy-folliaged ones near the house. Resolved, That the children should be allowed to come to the Grange and remain in the entry during opening and closing.

Antrim Co. M. E. N.
FREMONT GRANGE, NO. 404.

entertained Newaygo Pomona March 2 and 3; good attendance in spite of bad roads. The unit school system was thoroughly discussed. Nearly 300 took dinner with us the last day. On Saturday afternoon we held regular Grange, and discussed "What shall we read," also the "Uniform text book plan."

Newaygo Co. MRS. P. W. HALL.
JEFFERSON GRANGE, NO. 182.

will hold a farmers' institute Tuesday, March 22. The following speakers have been secured: Ex-Gov. C. G. Luce, Worthy Master G. B. Horton, Prof. L. R. Taft, Agricultural College; Mrs. E. D. Nokes, Church; T. S. Rowe, Camden; N. I. Moore, Moscow, and A. L. Davis, Jefferson. Three sessions will be held, beginning at 10 o'clock a. m.

Hillsdale Co. B. A. BOWDITCH.
SOUTH BOSTON GRANGE, NO. 175.

is in a prosperous condition. A class of 12 have just been given the third and fourth degrees, and another class is being formed. We are taking up and discussing interesting subjects, such as "Literature," "The future of the farmer," etc. The discussions are lively and interesting, as well as instructive.

Kent Co. COR.
WOLF CREEK GRANGE, NO. 708.

Officers are: Master, L. C. Baker; overseer, Chas. Selleck; lecturer, Mrs. M. Brazee; secretary, Lou Teachout. Have conferred degrees at every meeting so far this year, leaving little time for discussion. March 5 conferred the first two degrees on six. We have a traveling library, and it is well patronized. Grange numbers 72 in good standing.

Lenawee Co. MRS. M. BRAZEE.
RANSOM GRANGE

has had "hard sledding" of late on account of bad weather. We do not favor the free seed distribution by congressmen, because it benefits those who are able to buy; also it fosters paternalism, which should be discouraged in these days; and lastly the seeds are not carefully selected, but are simply to keep the congressman in view for re-election.

Hillsdale Co. A. W. DOTY, Cor.
TALLMADGE GRANGE, NO. 639.

Regular session was held March 5. The first and second degrees were given to a class of four. After considerable discussion it was quite generally conceded that the present patent laws are a benefit to the people.

The Grange decided to build an addition to the hall, work to commence immediately. The next regular meeting, on March 19, will be a fourth degree meeting, commencing at 10 a. m., with a feast at noon.

Kent Co. COR.
SPARTA GRANGE, NO. 340.

failed to hold its last regular meeting in February on account of our village, in which the Grange hall is situated, being under quarantine for scarlet fever. March 5 had a fair attendance, with literary program. Discussion on "Insurance Companies." Verdict seemed to be that the two mutual companies of Kent Co. were not just what they should be, but before organizing another company we, as Patrons,

should give our presence and influence at the annual meetings to correct all errors.

Kent Co. MRS. J. DART.
BALTIMORE GRANGE, NO. 472,
asleep for a short time, Saturday evening, March 5th, awakened and elected a full set of officers. The principal ones are: D. C. Warner, master; G. P. Woodmansee, overseer; P. Woodmansee, lecturer; M. M. Slocum, secretary. We will have a feast and install officers in two weeks, and extend a cordial invitation to all old members that have grown cold in the Order to meet with us and help us advance the cause that is the most beneficial to the farmer.

Barry Co. J. E. TOBIAS, Cor.
ROCKFORD GRANGE, NO. 110.

observed Washington day, Feb. 26, after giving the third degree to a class of twelve. March 5 we held a special and finished with a feast. This makes our second class this year, and we will start another class at our next meeting, which will also have a temperance program.

The work is looking up in Kent county, and it does the old members much good. There was a large attendance at the Union Grange held at Cannonsburg, Feb. 26. Next one at Alpine, March 12.

Kent Co. E. R. KEECH.
QUINCY GRANGE, NO. 152.

is pursuing the even tenor of its way as usual. We never go to extremes; accept of questions as they present themselves, and after due consideration act accordingly.

Our meetings are generally well attended; usually try to have a program. Have talked up mutual insurance, and are about perfecting an organization to carry its objects into effect.

Do not see why farmers should not do their own business more than they have in the past, and if they but heed the suggestions of Bro. Horton, they will.

Branch Co. T. H. COOK, Cor.
WHITE OAK GRANGE, NO. 241.

Grange passed appropriate resolutions regarding the death of Bro. J. W. Gifford. His life among us had always been above reproach. He had held many public and private trusts, all of which he discharged with fidelity. The loss to us is most severe.

We recently celebrated the birthdays of Washington and Lowell with a fine program, consisting, in addition to music and recitations, of papers on "The revolution; its cause, cost and results;" "Lowell's Life," and a "Eulogy on Washington," written by Lowell.

Ingham Co. MAE HASTINGS.
PALMYRA GRANGE, NO. 212.

on March 4 third degree was conferred on eight. For the program each member gave his thought as to what constitutes a model Grange; the following ideas were brought out: "All should take an interest in the work." "Each member should be willing to do the work assigned him." "Social features should not be neglected." "We should work in concert." "Attend more strictly to our ritualistic work." "Whatever we do, strive to do well." Veteran Bro. Munch, of Raisin Grange, gave us a short address.

Lenawee Co. SMITH EVERETT.
HAMILTON GRANGE, NO. 355.

We are now having a series of reports on the various State institutions; eight of these institutions have already been treated. The reports were excellent, and I would advise other Granges to do the same. Reports can be secured by writing directly to the institutions. We have also been having a series of social entertainments this winter, and we are planning for a minstrel show soon. On February 22 had a combined Washington and Lincoln program.

Van Buren Co. CHAS. WAGNER.
CLAYTON GRANGE, NO. 694.

March 5 had two applications. Had a talk on the pure food law. Our plan of buying goods as a Grange is to purchase in bulk at jobbers' rates of one of our merchants at the county seat, take the goods to the Grange hall, where we have a small store, and sell directly to our members as at any store, at cost or at a small advance. The Grange treasury is our capital. Each member takes the butter and eggs to the merchant with whom we deal and there gets a bill of credit on Clayton Grange, which is good for cash at the Grange store, and which can also be used by the Grange as credit for goods. We keep in stock all kinds of groceries, oil, nails, harness repairs, thread, etc.

Genesee Co. GEO. W. BLOSS.
NORTH ROME GRANGE.

Bro. George B. Horton, of Fruit Ridge, and Deputy Warren Shepherd,

Master of Onsted Grange, organized a new Grange Jan. 14, and officers were elected and installed with only twenty-one members. Seventeen more members added Jan. 28, and Feb. 4 Bro. Shepherd came and instructed the Grange and officers. Feb. 11 Bro. Shepherd furnished the books from his Grange, and a good meeting was held. The Michigan Farmer correspondent was appointed, and a new place to hold Grange meetings was chosen. Feb. 26 the new hall was ready, and thirteen more new members were added, making a total of 51 members. We are glad we are prospering, and we hope to increase to larger numbers at our next meeting.

W. GRANT BANCROFT, Cor.

Lenawee Co.

ROME GRANGE, NO. 293.

The question "Would Postal Savings Banks be Beneficial to Farmers?" was discussed by Bro. J. H. Combs in a very interesting paper based upon the last report of the Postmaster General, in which the benefits of such banks to farmers and persons of small means were plainly shown. The satisfactory results of the workings of postal banks in other countries, where they have been established many years, were mentioned.

Bro. Hoddinott said he had himself had the benefits of such banks in England, where young people, and even children held their bank books with pride, and thus learned to save their earnings instead of squandering them.

P. H. Dowling said a bill is now before Congress for the establishment of postal banks, which provides for a central bank at Washington under the control of the Postmaster General, with branch offices as certain money-order offices throughout the country. We wish the subject could be more fully discussed in Granges and farmers' clubs.

DORA L. DOWLING, Cor.

Lenawee Co.

ALLEGAN COUNTY COUNCIL

met at Watson Grange Hall March 1. After welcome and responses, a paper in regard to criminal punishment in our county was read by S. P. Albertson, of Watson. He believed that very few criminals had received just punishment during the past twenty-five years, for a good many had received practically no punishment at all. "The use of animal fat in cooking" was next taken up and before the discussion, which followed the reading of the essay by L. W. Houser, was concluded, he said that starch was much more easily digested than fat, but that it did not matter so much what we ate, for it was what we digested, mentally, morally and physically, that did us good. The question of the farmers maintaining a county fair was thoroughly discussed. It was pretty well agreed that farmers should receive premiums for their stock proportionate to those paid for fast horses. "The best way to help dormant Granges is for every member to attend," was a thought advanced by one Patron upon this subject. We were entertained with vocal and instrumental music and refreshed with a dinner.

YPSILANTI GRANGE NO. 56,

met March 5. We have organized a choir which meets weekly for practice at the homes of different members. The singing is a very enjoyable feature of our programs, and ought to be a part of the exercise of every Grange.

Bro. A. R. Graves took up the discussion of the portion of Worthy Master Horton's address bearing upon legislative work. There was some opposition to the State appropriation for farmers' institutes, believing it to be class legislation. The Agricultural College and postal savings banks were both commended.

Sister B. S. Covert presented an interesting paper on "The Trials of a Farmer's Wife." Most farmers' wives have too much work to attend to, and a lack of conveniences as compared to the city woman made the work harder.

Sister N. C. Carpenter gave us the other side of the question, "The Joys of a Farmer's Wife." A general discussion followed, bringing out some good thoughts, and the remarks drifted to the question of the rights and privileges of the wife in her husband's affairs. Some thought the wife should be made the confidante of the husband, and others held that the wife's household duties were sufficient burden for her to carry.

Washtenaw Co.

CHAS. L. FOSTER.

ALLEGAN GRANGE.

Owing to a lack of courtesy on the part of the social committee, the weather prophet, Hicks, was not invited to our Night Cap Social. It is claimed by some that he resented this and so sent along this glorious snow-

storm that kept only the weaker sex—the men—at home. We do not claim that we had a large crowd, but we did have a good crowd, for we were nearly all women. A program was rendered that lacked nothing but Bro. Barton's Dutch song. Sister Ely made the occasion doubly joyous and spring-like from the fact that she wore a beautiful bunch of fragrant pink hyacinths. Our night caps caused the most sport. Sister Vahue came as Little Red Riding Hood, Sister Brownell as a Salvation Army woman, and the rest in caps more or less becoming. We think Sister Van Valkenburg's rather more so. Receipts of social were forwarded to Cuba for the sufferers.

Allegan Co.

COMMITTEE.

FROM WAYNE COUNTY.

If your columns show any correspondence of late from Wayne, it has escaped my notice. Some may doubt whether we have any farmers' organizations. I am glad to announce that we at least have our full share of Grange activity. There are seven Subordinate Granges in the county. Of these, Redford, Flat Rock, and Willow are now and always have been flourishing. Belleville has recently reorganized with vigor. Ash Center has its hall in Monroe county, but for convenience Worthy Master Horton has placed it in our jurisdiction. Union is also vigorous. Last, but most important to your correspondent, is Plymouth Grange, No. 389. It was one of the very early Granges in the State. I think its history is rather unique in one particular, that while its members and resources have dwindled from the early days, it has never defaulted dues or failed in regular meeting. The attempt to dispense with the services of the middleman has never been a prominent feature of its work. I am free to say, heretical as it may sound, that I believe that the undue prominence of the above feature is the cause of depressed Grange work in the past history of our Order.

Plymouth Grange meets monthly at the homes of its members.

LECTURER OF PLYMOUTH GRANGE.
KENT COUNTY GRANGE

A regular meeting was held at Sparta Grange Hall, March 2 and 3. Wednesday afternoon session was open to the public, and in the evening the fifth degree was given. Thursday afternoon was devoted to the regular routine business of the Order.

The following program, plentifully interspersed with recitations, was rendered: Opening song by the audience, after which Bro. E. S. Dart, Master of Sparta Grange, gave hearty words of welcome, to which Bro. W. T. Adams responded in behalf of Kent County Grange.

Bro. Norton Fitch opened a discussion on, "Are the present State Farmers' Institutes managed for the best interests of the farmers?" Thoughts gleaned were: "The Farmers' Institute, like the Grange, is as the farmers make it. If it isn't governed or conducted as we would like, we are to blame for it ourselves. A large portion of the Institute work may be done by any subordinate Grange. The Institute is designed to be an aid to every farmer. Are we as farmers uniting and trying to help ourselves?"

Sister Garwood read an essay on "The Relation of the School to the Home," and after an able paper on the same subject by Sister Saunders a discussion followed from which the following thoughts were gleaned: "There should be complete co-operation between the two. The school is to-day almost a part of the home, and vice versa, and they are so nearly connected that it almost impossible to separate them. The parent is the principal teacher, and the school is but a supplement to the home, where the education must and does in all cases begin. The school may be said to be, in reality, a part of the home. We must first look well to our own homes if we ever expect any improvement in the morals of our young people, for the morals of the school would be much better if the parents in the homes were more careful in their own conduct and did not leave the teaching of morality entirely to the teacher; and when we raise the standard of the home we raise the standard of the school. But, let the school be good or bad, it has its influence upon the home and the community. The school is a great discipline for the development of character, and whatever the school is the nation will be. A too frequent change of teachers often prevents the sympathy which should exist between the parents and teachers; and, if the parents would visit the schools and see what the teacher has to contend

with, they would have more sympathy for the teacher. If we would give the children something to do in manual training we would to a great extent do away with the immorality now growing up in our schools. If all would follow the Golden Rule, then the relation between the home and school would be what it should."

Commissioner Chapel then, with a very interesting paper, opened a discussion on the subject, "Would it be for the best interests of the people of Kent county to form a Teachers and Patrons' Association?" Gleanings: "Who is the teacher? Every companion, person or object with which the child comes into contact has its influence and teaches the young mind to a certain extent either for good or bad, according to the natural receptiveness of the individual mind and the nature of that which is teaching. To get the greatest good out of our schools we must be equipped in the best manner possible. If the teacher knows the parent, there is a bond of sympathy which will materially help the teacher in his work of teaching and governing a school."

Steps were taken toward forming

such an association and the first meeting will be held at Cedar Springs, March 18 and 19, and it is hoped a large number of both Patrons of Husbandry and teachers will be present to discuss this subject and listen to the excellent speakers who have been engaged.

"The Grange Farmers' Insurance Companies" was discussed to some extent, but with no definite results.

From the discussion on "Farming—Its Outlook," this one important thought was noted: "One of the causes of the present discontent of farmers is wrong legislation."

A committee consisting of one member from each Grange in the county was appointed to draft resolutions to our next legislature asking them to make a law which will provide for a State grain inspector, who will see that the farmers get their just dues when they sell their grain.

The subject of "Fresh air work in the Grange" was discussed to some extent.

The next meeting will occur in June, the time and place to be announced later by the secretary.

SEC'Y.

The Improved U. S. Separator

leads in the greatest dairy State of the West,

WISCONSIN

R. M. Bussard's Creamery, Poynette, Wis., scoring 98½ points and taking

SWEEPSTAKES

at the State Convention at Manitowoc, Feb. 9-11, 1898.

Remember the United States leads in the greatest dairy State of the East,

VERMONT

E. E. Symes' Creamery, Ryegate, taking

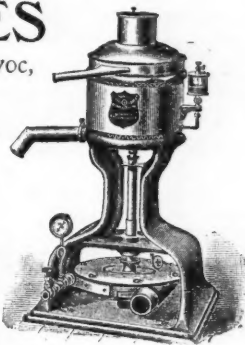
GOLD MEDAL

at the State Convention at St. Albans, Jan. 4-7, 1898.

Notwithstanding the Improved United States is the last separator on the market, it is taking the lead in all sections where used.

Send for pamphlets containing hundreds of testimonials.

VERMONT FARM MACHINE CO., Bellows Falls, Vermont



SPECIAL 60 DAYS OFFER TO INTRODUCE OUR LATEST LARGE POWERFUL ACHROMATIC TELESCOPE, THE EXCELSIOR.

5 JUST WHAT YOU WANT ONLY 99 CENTS
to OVER 3½ FEET LONG
Mile ON SEA FARM OR RANCH

POSITIVELY such a good Telescope was never sold for this price before. These Telescopes are made by one of the largest manufacturers of Europe, measure closed 12 inches and open over 3½ feet in 5 sections. They are BRASS BOUND, BRASS SAFETY CAP on each end to exclude dust, etc. with POWERFUL LENSES, scientifically ground and adjusted. GUARANTEED BY THE MAKER. Better Telescopes of this size have been sold for from \$5.00 to \$8.00. Every journeyer in the country or at seaside resorts should certainly secure one of these instruments; and no farmer should be without one. Objects miles away are brought to view with astonishing clearness. Sent by mail or express, safely packed, prepaid for only 99 cts. Our new Catalogue of Waynes, etc. sent with each order. This is a grand offer and you should not miss it. WE WILL ACCEPT each Telescope JUST AS REPRESENTED or money refunded. WANTS ANOTHER; Brandy, Va. Gent.—Please send another Telescope, money enclosed. Other was a bargain, good as instrument costing many times the money.—R. C. ALLEN, Send 99 CENTS by Registered Letter, Post Office Money Order, Express Money Order, or Bank Draft payable to our order, or have your check or money order order for you. EXCELSIOR IMPORTING CO., 116 Broadway, New York, Box 728.

SAVE YOUR Buildings



Use GEDGE Steel Roofing and Siding. Save paint and siding and foundation by using our galvanized Eaves Trough and Spouting. Write for our Illustrated Booklet. WE SEND IT FREE. GEDGE BROS. IRON ROOFING CO. Box 15, Anderson, Ind.

SPRING PRUNING KNIFE AND BRUSH HOOK always makes a draw cut, never becomes fast in wood. Will cut a limb one inch thick. Unequaled for pruning trees and bushes and cutting out blackberries, etc. Sample by express, prepaid, \$1.00. Agents wanted.



Pressure between burrs in grinding is carried on chilled roller bearings. Large inside burr revolves twice to sweep's one. Ordinary length sweep.



Sold under an absolute guarantee to do double the amount of work of any other mill of same size or money refunded. Write for circulars and prices. DAIN MFG. CO., Carrollton, Mo.

DO YOU SAW WOOD?

with the best machinery and save time and strength. The "Electric" SMALLEY SAWS enable one man to do the work two could do in the old way. Our "Electric" Circular Saws and Self-Feed Drag Saws are by far the best general purpose Saw Saws ever made. Send for Descriptive Catalogue and price list of "Smalley" Saws, Enslings and Fodder Cutters, Feed Mills, Corn Shellers, Root Cutters and Horse Powers. SMALLEY MFG. CO., Manitowoc, Wis. Chicago Branch, Randolph and So. Canal Sts.

CLEARING LAND CLIMAX GRUB & STUMP



MY TWO-HORSE JUMBO will pull larger ones. The two best all around Grub and Stump Pullers on Earth. Machines arranged for two pulls at once. Prices are Right. Special Price on first machine sold in New Territory. Send for my Catalogue before you buy a Puller or grub by hand. C. D. EDWARDS, Albert Lea, Minn. Also Manufacturer of Open Ditchers.

When writing advertisers mention Mich. Farmer

Miscellaneous.

THE NORTH WALK MYSTERY.

BY WILL N. HARBEN.

[Copyright 1897, by Will N. Harben.]
(Continued.)

The young man's anger subsided. It was as if sudden fear and suspicion had overpowered it. He leaned on the back of his chair with trembling hands. His face was deathly pale. "Pardon me," he said. "But you say you know what you have just stated? You know that they tried to catch the 1:30 train for New York?" "I do. They were not quick enough. The next train was not due before 3:20. They came back home, bringing their luggage on a cab. Montcastle did not unpack his bag, but Miss Benton took out her wearing apparel and hung it up."

Ralph stared; his white lips parted. They could hear him breathing. "It's absurd—perfectly absurd," he said, trying to smile. "My sister would not!"

Hendricks interrupted him with a gesture of the hand.

"I am not," he said, "working on the theory that your sister had a hand in the crime. But, if I may ask, do you think the relationship between Miss Benton and Montcastle is such that if—mind you, if—he were to tell her he had accidentally killed your father, or did it in the heat of passion, under impulse, or in self defense, and was afraid to face the law—do you think, I say, that she would stand by him?"

An expression of vast relief trembled in the young man's eyes and passed over his face.

"They are engaged to be married," he admitted, "and she thinks the world and all of him. The truth is father did not like Montcastle and took pains to let him see it. Sister thought Montcastle was not fairly treated. So you think he may have had designs on my sister's fortune, and?"

Hendricks interrupted him.

"Your father was not killed till after he had declared he would disown Miss Benton the next day, and you say Montcastle is engaged to her."

Ralph sat down. He looked as if his legs had refused longer to bear the weight of his body.

"It is an awful situation," he said, almost with a groan. "Montcastle doesn't look like a man who could!"

Again Hendricks interrupted him.

"Has there been any sort of intimacy between Montcastle and this Mr. Brooks Allen," he asked.

Ralph reflected.

"I don't know," he began, "and yet Montcastle has seemed to be interested in the old man's inventions and plans—that is, a little more than the rest of us. You see, Mr. Allen had got to be a sort of bore, and we didn't care to listen, but Montcastle always treated him considerably. They went fishing together once and came back from the city together two or three times, and"—Ralph broke off suddenly. His eye began to kindle with determination. "Look here, Hendricks," he said. "I want to get at the bottom of this matter at once and have done with it. Let me call sister in here. If what you say is true, she must give an explanation. If Montcastle killed my father, I want him taken in charge."

"I have no objection," replied the detective, "but if it is the same to you I'd like to question her."

"I am willing," answered Ralph, and he went into the next room.

During the conversation only a single gas jet had been burning. Hendricks rose, held a match to the flame and lighted two other jets. He had just resumed his seat on the lounge when Ralph and his sister entered.

She bowed rather coldly to Hendricks and Lampkin.

"You wish to see me?" she asked the former as she sat down stiffly.

"Yes, I wanted to ask you a few questions," answered the detective, eyeing her attentively. "It would materially aid me in my investigations to have you explain a few things concerning your actions on the night your father was killed."

Miss Benton's glance fell to her lap. "Surely you are mistaken, Mr. Hendricks," she said. "Why, what can you mean?"

"I have proof," said the detective, "that you and Mr. Montcastle packed a couple of bags and tried to catch the 1:30 train for New York that night. As nearly as I can get at it, you left immediately after the murder. You missed your train, and as the next one

was not due till 3:20 you came back home."

Miss Benton's face had paled. Her shoulders rose and quivered convulsively. For a minute she continued to look down. Then an angry light began to blaze in her eyes.

"Do you mean," she asked, fixing Hendricks with a steady gaze—"do you mean to intimate that you suspect Mr. Montcastle and myself of—the crime?"

Hendricks' reply was skillfully evasive.

"I mean that it will be far better in any case for you or Mr. Montcastle to explain your conduct on that night."

Miss Benton sneered.

"I presume you are trying to play a trick on me, as you did on my brother last night. If you want to find out anything about me go elsewhere. You can't frighten me."

"Sister, this is a very serious matter," spoke up Ralph. "You must explain yourself, or Montcastle, at least, will get into trouble."

"Trouble?" asked the young lady angrily. "Has this detective any right to pry into our own private affairs?"

Then her face rapidly changed its expression. "Why, what can you mean? Neither Mr. Montcastle nor I could be accused. You know you told me what you had seen."

"Oh, I forgot you did not know!" said Ralph quickly. "Mr. Hendricks has proven to me that father did not commit suicide; that he was killed by some one else. We need not explain now. I am satisfied on that point, and that is why it looks so gloomy for Montcastle. Sister, you must really out with the truth. Did you and he go to the train that night? Answer me."

Miss Benton seemed too much agitated to speak. She went to the bell and rang and came back to her chair. She was very white and trembling from head to foot. Presently Mary entered.

"Did you ring, miss?" she asked.

"Is Mr. Montcastle in the smoking room?" said Miss Benton.

"No, miss; he's in Mr. Allen's room. Mr. Allen has had another hemorrhage, a pretty bad one. We wanted to send for a doctor, but he wouldn't let us."

"Tell Mr. Montcastle to come to me at once," commanded Miss Benton. "Tell him not to wait a minute."

No one spoke till Montcastle entered. "What is it?" he asked, looking at his fiancée in surprise.

"Mr. Hendricks is about to handcuff me," explained Miss Benton, with sarcasm. "He says he can prove that we went to the station the night father died and that suspicion has been directed against us."

"What?" thundered Montcastle.

"How dare you, sir?"

Hendricks faced him calmly. "At such a time, if you refuse to explain your conduct when requested civilly, it is right and proper that suspicion should fall on you. I am simply seeking for information."

"But you are going into our own private affairs," answered Montcastle. "Because Mr. Benton happened to be killed that night is no reason we should make a confidant of you unless we wish to do so."

"You can explain now or do it in court," answered Hendricks with a smile. "From my standpoint as a detective I am obliged to regard your conduct that night as suspicious."

"He is right, Montcastle!" broke in Ralph excitedly. "As the present head of this family I insist on an explanation. If you had anything to do with the crime!"

"Brother, be ashamed of yourself!" cried Miss Benton, rising and standing between the two men. "Remember that Arthur—Mr. Montcastle—is our guest."

"Do you mean to accuse me of the murder?" asked Montcastle, white with rage.

"I'll accuse you of what I like and punch your blasted head, too, if you don't explain why you were riding in a cab with my sister at that hour of the night. Do you understand? Out with it, or I'll order your arrest in a minute! I am tired of this mystery."

Montcastle stood as if turned to stone. Miss Benton covered her face and began to sob.

"Tell them," she said to Montcastle. "There is nothing else to do. Brother says it was not suicide, and I shall not feel so bad about it. I thought I had driven poor papa to it."

Montcastle leaned on a table for a minute, then cleared his throat and began.

"It's a tempest in a teapot," he said. "I am willing to make a statement, but I want it distinctly understood that I am doing it at the request of this lady

and not at the command of her brother. For several months Miss Benton and I have been engaged. I have an aunt living in San Francisco who has made me the heir to her fortune. I wrote to her of my intentions, but she had made another choice for me and gave me to understand plainly that if Miss Benton and I were married she would cut me out of her will. Notwithstanding this I determined to carry out my plans and formally proposed to Mr. Benton for the hand of his daughter. He had never liked me, and when I told him what my aunt had written he flatly refused to give his consent. Then Miss Benton and I planned an elopement for the night her father was killed. We would not have gone at such a late hour, but it was the only time we could get away without being seen. I hurriedly packed my things in a valise. Miss Benton put some of her things in a traveling bag, and Mary, in whom we had confided, was to forward her trunk the next day. We were ready to go when Alice—Miss Benton—decided to appeal to her father once more."

"You'd better let me tell what happened next," broke in Miss Benton. "I heard father walking in his room. I think it was about 20 minutes before 1 o'clock. I knew he was in one of his sleepless moods and went up and found him in a frightfully nervous condition. It was about some business dispute he had had that afternoon with Mr. Allen. It seemed that Mr. Allen had been trying to force him to sign some paper which would give Mr. Allen a half interest in an invention which had cost my father ten times as much as Mr. Allen had said it should. After he had told me all his troubles and had abused me soundly on account of my engagement I implored him to reconsider his decision in regard to Mr. Montcastle. This threw him into a terrible fury. He not only refused to give his consent to my marriage, but pushed me from the room and declared he would disown me as soon as he could see his lawyer the next day."

"I am sure he meant it. I went down and told Montcastle what had taken place, and we decided to leave, as we were ready and the cab was at the door. When we got to the station, the train had just gone. There was not another till after 3. We sat in the waiting room for nearly an hour. In the meantime I became so blue over it all, particularly my father's health, that I changed my mind, and as Mr. Montcastle assured me we could get back home without being detected we returned. As we were entering the house we met Mr. Stanwood and Miss Hastings coming down stairs. I suspected the next morning that my father had taken his own life, and then brother confirmed my fears by telling me about the note and how he had found him. Ralph advised me!"

The speaker paused and glanced at her brother inquiringly.

"Go ahead," said Ralph. "I have told Mr. Hendricks about that."

"He advised me not to let it be known that it was suicide," continued Miss Benton. "We did not want Aunt Martha to think so. I am glad it was not. I don't believe we could have kept her deceived very long. She has predicted a hundred times—but that has nothing to do with what you wanted to know."

Hendricks rose.

"I am deeply indebted to all of you," he said. "If you had not explained your conduct that night, I should have been off the track considerably, and the real murderer could have been half round the earth for his health before I got to work on the case."

Lampkin was watching Hendricks attentively, wondering if he still suspected Montcastle. The face of the detective was a puzzle. At the door Hendricks turned to Montcastle, who had followed him.

"The maid tells me," he said, "that Mr. Allen has had a serious hemorrhage."

"Frightful!" replied Montcastle. "I wanted to call in a physician, but he wouldn't allow it. He flatly refused to see one."

"Would you listen to what a sick man says at such a time?" asked the detective. "Don't you know that a man in his condition is not the best judge of such things? Do you want the fellow to die on your hands?"

"I tried to get his consent," stammered Montcastle, "but he wouldn't listen to it. He is frightfully upset."

"My friend here, Dr. Lampkin, is a regular physician. Don't you think it would be a good idea for him to see Mr. Allen at once?"

"I think so," answered Montcastle. "I'll show you up, doctor, if you wish."

Lampkin hesitated. Professional etiquette had hitherto prevented him from appearing unsolicited at the bedside of any one.

"Go up and see what ails him," said Hendricks, pinching Lampkin's arm significantly. "I'll wait for you outside. You may save his life."

Lampkin followed Montcastle up stairs, and Hendricks joined Kola and Stanwood on the lawn. Stanwood went into the house, leaving the two friends together.

"Well?" said Kola.

"Well?" echoed the detective. He sat down on a rustic bench under the trees, and, with wrinkled brow, stared at the rising moon. Kola sat down, lighted a cigar and fell into Hendricks' pensive mood. In about ten minutes Lampkin came out. Hendricks rose.

"Well," he said as they turned toward the gate, "what was the matter with Allen?"

"He is bleeding from the lungs constantly," answered the doctor. "Looks like a case of consumption badly neglected. However, I could not tell anything definitely. He refused to let me touch him—even to feel his pulse. He looks to me like a dying man. I have just told Ralph Benton that he must have medical care at once. I think they may send him to a hospital."

Hendricks made no further remark till they were half way to the station. Then he pulled his beard nervously and said:

"Hang it, I can't make Allen out. If he is really seriously ill, I do not want to tackle him. I don't want to frighten him to death unless I know more than I do. You are sure there is no shamming about the hemorrhage?"

"Sure as I am of being here," answered Lampkin.

Hendricks was silent till they reached the station.

"Going in the smoker?" he asked as the train came up.

Lampkin and the adept nodded. In the car Hendricks took a seat at a window by himself and sat looking out at the darkness all the way to the ferryboat.

(To be continued.)

Have You Asthma or Hay-Fever?

Medical Science at last reports a positive cure for Asthma and Hay-fever in the wonderful Kola Plant, a new botanical discovery found on the Congo River, West Africa. Its cures are really marvelous. Rev. J. L. Combs, of Martinsburg, West Va., writes that it cured him of Asthma of thirty years' standing, and Hon. L. G. Clute, of Greeley, Iowa, testifies that for three years he had to sleep propped up in a chair in Hay-fever season, being unable to lie down night or day. The Kola plant cured him at once. Mr. Alfred C. Lewis, editor of the *Farmer's Magazine*, was also cured when he could not lie down for fear of choking, being always worse in Hay-fever season. Others of our readers give similar testimony, proving it truly a wonderful remedy. If you suffer from Asthma or Hay-fever we advise you to send your address to the Kola Importing Co., 1164 Broadway, New York, who to prove its power will send a Large Case by mail free to every reader of THE MICHIGAN FARMER who needs it. All they ask in return is that when cured yourself you will tell your neighbors about it. It costs you nothing and you should surely try it.

GOOD COWS PAY



but a SAFETY HAND SEPARATOR will make them pay far better. With it you can make more butter and better butter from eight cows, than from ten cows without it. It eats

nothing; it saves time. Will you try one?
BRANCHES:
Elgin, Ill.
Dubuque, Iowa.
Omaha, Neb.

P. M. SHARPLES,
West Chester, Pa.

Knocked out by Lumbago?

It's because you don't cure it with ST. JACOBS OIL, which penetrates to the seat of the pain and subdues, soothes, cures.

The Dairy.

We have a complete Dairy and Farm Creamery in constant operation on the Experiment Farm at Climax, Mich. This is personally conducted by J. H. Brown. All dairy correspondence should be sent to Climax, Mich.

THE EDITOR'S DAIRY NOTES.

DOG OR SHEEP TREAD POWER FOR DAIRY USE.

This is the latest query, and information is wanted concerning the utility and practicability of using such power for running a swing churn of small size, a hand separator, etc.

We have another query as to whether a "home made" dog power could not be made to do good work, and directions for making, governing the speed, etc.

We have seen several so-called dog powers, very similar to the one shown in the cut, and one was run by a sheep weighing about 160 pounds. The cut shows how an attachment is made to the swing churn. If a barrel churn is used, a pulley should be placed on the power shaft, one also on the churn, and a belt placed thereon.

Only the small sized churns—say of less than 30 gallons capacity—should be attached to such a power. A cream separator, of about 350 pounds skimming capacity per hour, may be handily manipulated by a dog or sheep weighing approximately 175 pounds or even less.

The slope of the power is made to conform to the speed required of the churn or cream separator. When a light weight dog or sheep is used the slope must be steeper. It is an easy matter to adjust all the machinery and connections for doing very satisfactory work.

We have a small swing churn that we used for a short time before getting a larger one to handle the cream from our gradually increasing herd. This churn is arranged complete for power attachment. Before we laid it aside, we studied over the feasibility of constructing a "home made" power, such as our correspondent referred to. We also wrote the manufacturers of powers and churns, who by the way are constantly advertising in *The Farmer*, and finally decided it would be cheaper to purchase a dog or sheep power that was factory made than to try to make one ourselves.

Of course we could make a power, of some sort of a pattern, but it would take considerable time, and a goodly portion of the material must be purchased from various sources. Then the blacksmith must be visited, as we have no blacksmith's outfit for doing such work. And upon the whole we decided not to attempt getting out the home made machine, consequently never used dog or sheep power on our farm.

As to whether a heavy dog or sheep could profitably do such work, we have no doubt. We never took much stock in dogs, on a dairy farm or anywhere else, but if a large dog is at hand, and could be utilized for skimming milk and churning the cream into butter, we most assuredly believe in drafting him into service.

In arranging the pulleys and belting for running a barrel churn or separator by means of a dog or sheep power, it is advisable to use good-sized pulleys on both machines. The larger the pulley, at both ends, the more effective the "pull" exerted by the belt.

But the diameter and face of each pulley must be taken into consideration in securing this "pull." The above mentioned churn of ours has a double pulley, each 15 inches in diameter with a four-inch face. Suppose we have an eight-inch pulley with a four-inch face on the main shaft of the dog power, and the churn runs too slow under the steepest practical adjustment of the tread power.

Under such general condition it would be advisable to place a smaller pulley on the churn shaft. But for this small power, in order to increase the speed, we should place a pulley of larger diameter on the power shaft. Then, with a rubber belt, three inches in diameter, power can be transmitted to the churn or separator, and the belt can run quite loose.

With smaller pulley a tighter belt is required, as there is less pulling surface over the face of the pulleys.

It is important to secure pulleys of proper size on both driver and driven shaft, and this can be easily determined from knowing the number of revolutions per minute made by the driver shaft of the power, and the number required by the churn or separator per minute.

HORSE OR BULL ON THE TREAD POWER.

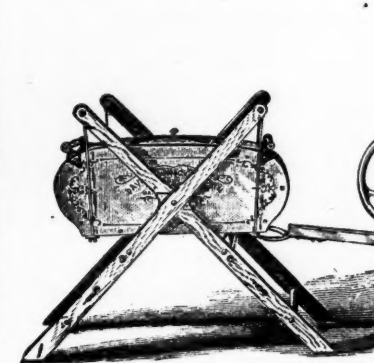
We have frequently been asked why we do not use our bull on our creamery tread power, instead of the horse.

It is simply on account of the trouble that would be required to maintain cleanliness on, in, and underneath the tread log bed of the power. The manure would run into and all around the logs, rollers, track, etc., and this would necessitate a daily flushing with water and additional scrubbing to keep things clean.

The tread power is in the south end of the creamery, separated by a partition from the boiler and separator room. It has always seemed to us best to use a horse on the power, under these circumstances.

Were is not for the above reasons,

we should prefer to use the bull. It would give him needed exercise and benefit him in various ways. He would also be more docile, and probably more easily handled.



DOG POWER WITH CHURN ATTACHED.

If our tread power was located in or around the barn we should use the bull anyway, but we dislike to take him into the creamery building itself.

SKIM MILK FOR CALVES.

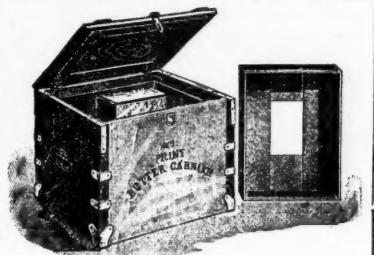
What is the best thing to mix with separator milk to feed young calves? Give number of quarts of milk for a meal. Is it best to feed three times a day?

MRS. DECKIE E. TOBIAS.

Lenawee Co., Mich.
We gradually change over from whole to skim milk, at the same time adding from one-half to one tablespoonful of scalded or cooked oil meal to each feed. We seldom feed a milk ration more than two times per day.

Too much skim milk is very generally fed to young calves. Not more than two quarts should be fed at a single meal at first. This can be gradually increased as the calf grows older.

After a little we also increase the amount of oil meal. Just as soon



HANDY BUTTER CARRIER.

as possible we induce the calf to eat a little clover hay and give a small handful of ground feed night and morning. This consists preferably of oats and bran. The calf must be kept growing constantly, but not fattened, and should have plenty of fresh air, sunshine and some exercise.

A BUTTER CARRIER FOR PRINT BUTTER.

The cut shows one of the carriers we use to ship butter, or to deliver to private customers in the summer time. This is another case wherein we consider it cheaper to purchase of the factory than to make ourselves.

We are constantly receiving letters from brother farmers asking about certain dairy or creamery implements. The best thing for each querist to do is to write one or more of the dairy implement manufacturers, who advertise in *The Farmer*, asking for a complete catalogue, stating what you want.

As the cut shows, there are removable trays provided that hold the pound prints compactly, as we put them up, and as was illustrated in *The Farmer* some time ago.

In the summer time we use the galvanized ice box, which sets down in the middle and has a tight cover. There is good ventilation, and we never saw anything better for our use in holding or shipping butter put up in pound prints.

"BROWN'S BRONCHIAL TROCHES" will quickly relieve Bronchitis, Asthma, Catarrh and Throat Diseases. Sold only in boxes.

For The Michigan Farmer. A CHANGE OF FEED.

Our milch cows were not doing all that we thought they should for the grain we were giving them, and as the weather had not been so very bad, with the exception of a few cold days, I concluded there must be something wrong with the coarse feed we were giving them.

It seemed almost impossible that this could be the cause, for in the morning on warm days they got good bright cornstalks, the same at noon, and well cured clover hay for their night ration. But as they were not doing well either in flesh or milk "a change of feed" was given.

The only thing we had for this, out-



DOG POWER WITH CHURN ATTACHED.

side of straw and timothy hay, was millet. The millet had been stored in the opposite end of the barn from the cow stable, not particularly to be kept away from the cows, but because the mow adjoining our cow stable was full of other produce at the time of securing the millet.

This, as you can see, puts us to considerable extra work, for we have to pitch this millet onto a scaffold over the barn floor, then carry it 32 feet to the chute which connects the top of our hay mow with the alley in our cow stable.

The first time I fed them millet it did me good to see them go at it. Instead of nosing around, as they had formerly done with the clover hay, they at once proceeded to "mow it away," and let me say that I was not the only one that it benefited.

The bossies at once showed their appreciation of the change by giving an additional quantity of milk, which was just as rich in butter fat, so far as we could ascertain. (I shall not give my experience of feeding butter fat into milk, for our results do not coincide with the other fellows.)

I often notice our cows eating, and if anything gets out of order with them it is not long till a remedy is tried. Cattle are as particular about their food as human beings, and from the experience we have had it leads me to believe that they are just like human beings in regard to eating, for some will turn up their noses at the best of food, while others will eat anything.

I used to think that a change of feed was not necessary when given either good stalks or clover hay. That was when I was younger in experience and fed my stock three times a day, and milked the cows twice, without thinking anything about the work except that it had to be gone through with.

I find there is a difference between doing work just to get it done and doing it to get the best possible returns. One requires only manual labor. The other a little of mental exertion, sprinkled along with it.

A person may be ever so well posted on feeding a herd of cattle to get the best of returns, yet he cannot drop one herd and take up another and meet with the success at the start that he had with the former herd. It requires time to learn the peculiar ways of each cow. Scarcely are there ever found two head in one herd that require exactly the same quantity or kind of

food. Too large a feed is a greater waste than too small a feed, for a cow overfed will shrink in her flow of milk, besides wasting a certain amount of fodder. Fodder that has been nosed over will not be eaten by anything, and its only value is for bedding and manure. Then some cows will consume more grain than others, making it into milk and butter fat.

We used to feed our cows a basinful of a certain kind of ground feed, no matter whether they wanted more or less, for we were not going to show partiality. Such a method we found, after getting acquainted with our cows' appetites, was foolish. Now if one cow can manufacture two dishes of meal into milk to another cow's one, she gets it. Cows will put only a certain amount of feed into milk, so we have found that it pays to give each cow just what she can handle at a profit.

ELIAS F. BROWN.

Hillsdale Co., Mich.

(There is much truth in your statements, and your experience is just what every intelligent herdsman and dairyman has gone through and thought over and over, until he becomes an expert feeder and recognizes that individuality in feeding has much to do with his success.)

It does pay to change feed occasionally, especially of the coarse provender. We sometimes feed corn stover entirely for awhile, then change by feeding mixed hay (clover and timothy) once each day, preferably at noon.

Sometimes the cows will ignore both bright hay and the best of well cured corn stover, and eat ravenously from a pile of bright wheat straw when allowed a ration from the stack occasionally during each week.

Cows have an appetite, of course, and, we believe, experience all the various changes of relish and disrelish of foods that we humans do. We like various condiments, in slight proportions, in certain kinds of foods. And, if the truth was known, the vote in a big cow convention would disclose to us the fact that we dairymen do not, many of us, give our cows enough salt, water and succulent material, especially during the winter months.

We know this to be a fact, and that careful attention to furnishing the above three ingredients, in liberal and proper proportions, would cause a "shelling out" of milk that would surprise cow-keepers.—Ed.)

Crystal Creameries FOR FARM DAIRIES.

Glass Cans, Steel Cabinets.

Prices from \$18 to \$100.

Pay for themselves in six months. Catalogs free.
THE KNEELAND CRYSTAL CREAMERY CO.,
LANSING, MICH.

"ALPHA-DE LAVAL" CREAM SEPARATORS.



De Laval Alpha "Baby" Cream Separators were first and have ever been kept best and cheapest. They are guaranteed superior to all imitations and infringements. Endorsed by all authorities. More than 125,000 in use. Sales ten to one of all others combined. All styles and sizes—\$50.- to \$225.- Save \$5.- to \$10.- per cow per year over any setting system, and \$3.- to \$5.- per cow per year over any imitating separator. New and improved machines for 1898. Send for new Catalogue containing a fund of up-to-date dairy information.

THE DE LAVAL SEPARATOR CO.
RANDOLPH & CANAL STS., CHICAGO. 74 CORTLANDT STREET, NEW YORK.

Save the COWS.

General Cow Drink on hand is cheap insurance. 50c. each; \$5.00 dozen. Circular free.
MOORE BROS., Veterinarians, Albany, N. Y.

Elgin System of Creameries

It will pay you to investigate our plans and visit our factories, if you are contemplating building a Creamery or Cheese Factory. All supplies furnished at lowest prices. Correspondence solicited.

A MODEL CREAMERY OF THE TRUE SYSTEM

True Dairy Supply Company,

303 to 309 Lock Street,

Syracuse, New York

Contractors and builders of Butter and Cheese Factories, Manufacturers and Dealers in Supplies. Or write

R. E. STURGIS, General Manager of Western Office, Allogan, Mich.

THE MICHIGAN FARMER

—AND—
State Journal of Agriculture.

THE LAWRENCE PUBLISHING CO.,

EDITORS AND PROPRIETORS.

M. J. LAWRENCE, - - - President.
M. W. LAWRENCE, - - - Vice-Pres.
M. L. LAWRENCE, - - - Secretary.

ROBERT GIBBONS,..... Associate
J. H. BROWN,..... Editors.

Nos. 39 to 45 Congress St. West,
DETROIT, MICH.

TERMS OF SUBSCRIPTION:

ONE YEAR. Postage paid.....\$1.00
SIX MONTHS......60

N. B.—We will always stop sending paper when the time for which it is paid has expired, so that to avoid missing any numbers, all should renew promptly.

Always send money by draft, postoffice money order, registered letter or by express. We will not be responsible for money sent in letters. Address all communications to, and make all drafts, checks and postoffice orders payable to the Lawrence Publishing Co.

ADVERTISING RATES:

Regular Ads. per line, each insertion.....25c.
Business Notices, solid matter, charged count.....55c.
Regular Reading Notices, set in reading matter type, charged count.....65c.
Special location 25 per cent extra.

No Ads. inserted for less than 75c. per insertion. Cuts and double column Ads. inserted at regular rates for space occupied.
Ads. displayed or loaded to suit advertisers, but are charged per line solid Agate measurement, or \$3.50 per inch each insertion.

No Lottery, Quack Doctor, or Swindling Advertisements inserted at any price.

SCALE OF DISCOUNTS.

The following discounts will be made on orders sent at one time for one advertiser, amounting to \$20 or over, to be completed within one year:
On \$ 20 and under \$ 50..... 5 per cent.
" 50 " " 100..... 10 " "
" 100 " " 200..... 15 " "
" 200 " " 300..... 20 " "
" 300 and over..... 25 " "
No deviation from above rates.

DETROIT, SATURDAY, MARCH 19, 1898.

This paper is entered at the Detroit Postoffice as second class matter.

THE DAILY "WORLD."

A CHANGE.

Commencing May 1, the Inter-state edition of the Daily World will be a regular 8-page paper every issue, and the combination price advanced to \$2. All who have subscribed and all who do subscribe between this and May 1 for the combination at \$1.50 (the present price) will get the advantage of the enlarged size for the balance of their time, from May 1, but the order must be received by us before May 1, as the price from that time on will be \$2. Get your orders in before May 1 and save 50 cents. Agents should take advantage of this change and push the combination. It will assist in securing orders for THE FARMER.

CONVICT LABOR ON THE HIGHWAYS.

A few years ago the State of New York adopted a new system for the employment of the labor of its convicts. It was decided to employ that labor in two channels only: the production of clothing, food and other supplies for inmates of state penal and charitable institutions, and the improvement of the public highways. A committee of the legislature of that state, appointed to investigate the workings of the new system, has made public its report, and if its conclusions are accepted as true, it may be safely asserted that New York has come nearer the solution of the convict labor problem than any other state. While the convicts have been kept employed, it has been in lines that have not seriously interfered with free labor, while at the same time the profits have been of such a nature that all citizens share alike in the benefits.

In this State the convict at work in a penal institution is a competitor with free labor in any line in which he is employed, while the profits of his labor go to the party or firm which contracts to employ him, and not to the people who are taxed to support such institutions. The convict, working on such contracts, is more of a menace to the laboring man employed in factories than if he was at large, for he will sooner or later affect the value of his labor. We have always main-

tained that convict labor should be employed in such directions as will not bring it into competition with free skilled labor, and that the profits of such labor should go to the State, not to the individual who contracts for such labor. Road building is certainly a line of work in which convicts can be safely employed, because it will interfere less with other labor than any other avocation in which they can be employed, and the benefits of good roads can be enjoyed by nearly all classes of citizens.

Labor unions have been trying for years to have the present system of contracting the labor of convicts to manufacturing concerns abolished, on the ground that it gives such concerns an unfair advantage, and tends to lower wages in any industry in which such labor is employed. They are surely right in their position on this question.

THE PRESENT SYSTEM OF GRADING GRAIN IN MICHIGAN.

In considering the methods at present in vogue in this State for determining the value of the grain grown in this State, and thereby fixing its price, the first thought that strikes the inquirer is, why is such a power left in the hands of an irresponsible body, whose interests are directly opposed to those of the producer? Other grain-growing states have generally passed laws placing this great power in the hands of state officials, amenable to the people, and removable whenever that action is deemed necessary. Under the inherent injustice of the present system, we have seen the reputation of the wheat grown in this State become lower from year to year, until Michigan wheat, once the most sought for and valuable of any in the markets of the world, occupies about the lowest place. As an exemplification of the loss of reputation, and consequently decline in value, suffered by Michigan wheat, let any one consult and compare the value of cash wheat in the Chicago and Detroit markets today. The grade of No. 2 red, nominally the same, was worth on Monday last 95 cents in Detroit and \$1.02½@1.03 in Chicago—a difference of 7½ cents. If Michigan wheat was graded the same as that from Illinois, Iowa, Minnesota and the Dakotas, every bushel now held by farmers in this State, good enough for No. 2, could be shipped to Chicago and sold at the price given above. But not one bushel is being sent that way. There is no market there for mixed and degraded wheat, and the mixers and degraders can make more money out of the farmers by maintaining the business in its present shape.

But the farmers are waking up to the iniquities of a system which degrades their products, injures their reputation, and compels them to pay the cost, as the farmer is charged for the inspection. At the Round-Up Institute held at the Agricultural College, after discussing the subject, which had been brought up by a paper read by the editor of The Farmer, a special committee was appointed to draft resolutions indicative of the views of the farmers there assembled. The resolutions reported, which were adopted by a unanimous vote, are as follows:

Whereas, It is the opinion of the farmers in attendance at this Institute, comprising representatives from nearly every county in the State, that the present system of grading its grain and seeds is working injuriously to the interests of producers, and has greatly damaged the reputation of Michigan's grain crops; it is, therefore, hereby

Resolved, That it would be of great financial benefit to the grain growers of this State, add much to the reputation of Michigan's grain crops, and aid in improving their quality, to have a system of inspection by State officials, which will insure to the grain-grower proper remuneration for the quality of the grain he produces.

Resolved, That we earnestly protest

against the present system of mixing and degrading our grain so as to rob the producer of his due reward, and advertise him as a grower of grain of such poor quality that it brings only the lowest prices in the markets of the world; and ask that we be relieved from a system which compels us to pay for the cost of degrading ourselves.

Resolved, That in behalf of the farming interests of the State, we respectfully urge upon the Legislature prompt and effective legislation to remedy the grievance complained of.

Resolved, That a committee be appointed by this Institute to present these resolutions to the Legislature of the State at its next meeting, and urge that the necessary legislation to this end be enacted at as early a date as possible.

Now, if the farmers of the State will take the trouble to impress upon their representatives the necessity for legislative action to protect the interests of the producer, as outlined in the above resolutions, the farmers will soon get rid of an incubus on their efforts to improve the quality of their grain crops, and secure proper remuneration for intelligent work in this direction. Do not be deceived by stories of the great cost of such a system. It has proved cheaper in every state where introduced than that established by boards of trade and chambers of commerce, and for which the farmer has to pay. At present the farmer has no voice in fixing the grades of his grain, which also fixes its value, and every bushel of wheat sold in Michigan has its price absolutely fixed by the grades adopted by the Detroit Board of Trade.

THE MATTER OF PENSIONS.

A correspondent, John Jones, who writes from Oakland county, takes exceptions to what we said in a recent issue regarding the class of persons who are applying for and receiving pensions through private pension bills. This correspondent says:

"I have just read in The Michigan Farmer what you say about pensions. Now, do you know all about this matter? You are calling the names that are given to soldiers by soldier haters from '61 to the present time. Now the facts are that these men who are on record as deserters nearly all served till the close of the war, and then were sent out on the plains to fight Indians. This they did not contract to do. They deserted and came home. I personally know several of them, as good soldiers and fighters as ever lived. One that was orderly for General Warren, and had three horses shot under him. Now, if you think you are right in calling such men bounty jumpers, sneaks and cowards, give them another crack, and old soldiers that have a good record will know where you belong. I believe that the genuine deserter you describe who is getting a pension is hard to find. We had one in our regiment. He can no more get a pension than a rebel soldier can. Please investigate this matter, as I would like to help you with your paper."

We presume our correspondent is an old soldier, and has an honorable record. For such men we have the deepest respect, as must every good and loyal citizen. It is because we know that men with dishonorable records are being placed on an equality with them that we protest. We make it a point never to allege anything till we have the facts to support our assertions, and from actual, positive knowledge we know that "genuine deserters," as our correspondent calls them, are being placed on the pension list every day. They could never get a pension through the pension department, as our correspondent says, but the congressmen from their districts get bills passed to straighten their records, and then private pension bills are rushed through and they are pensioners for life. Last week a bill was introduced to clear the record of a "genuine deserter" from the regiment the writer served in. There can be no doubt of his desertion, for he left the regiment a year before it was mustered out. We object to this, because we have a just pride in the record made during the last three years of the war by that regiment, and we don't

want a deserter to share that honor. He was a sneak and a coward. There are some five others, deserters from the same regiment, on the pension roll. We know them personally to be "genuine deserters." One of these we enlisted in the spring of 1865. He had been in another Michigan regiment, but was discharged for "disability." He received a bounty of nearly \$700, \$150 of which came from the State and \$50 from Wayne County, raised from the taxpayers. The balance he got from the city, which was trying hard to fill its quota of men. That man deserted on the way to join the regiment. Many years after he started in business here, and is now a pensioner on the basis of his service with the first regiment. Nearly a dozen others, enlisted at the same time, got big bounties, and deserted. Two of them had the brazen impudence to ask the writer to help them get a pension. Our correspondent will see we have "investigated" a little. We know of a member of the same regiment and company in which we served, deserting after six months' service, returning to Michigan and becoming a burglar, getting shot and crippled while burglarizing a business house, serving three years at Jackson, going to the soldiers' home at Dayton, Ohio, securing a pension on the wound received while committing the burglary, being elected to the Ohio Legislature, and there selected as speaker of the House. Finally, he got his deserts, because he had made himself so notorious that his record was looked up, and he was sent to state prison for another term. Of course, he got his pension by rank perjury, and by securing others willing to perjure themselves for his benefit. There were only 69 deserters from the regiment the writer served with out of 1,030 men. Those deserters have no right to an honorable record, and it is disgraceful for congressmen to use their opportunities to place them on an equality with the comrades they deserted in the hour of danger. To do so is to make desertion honorable, and hold out to deserters hereafter promise of immunity and reward that will surely bear fruit when another war demands the sacrifice of life and limb in the defense of the country. That is why we are opposed to pensioning deserters, bounty jumpers, sneaks and cowards, and we are willing to have the fact known to all the world.

SELLING LAND FOR DELINQUENT TAXES.

Hon. Roscoe D. Dix, Auditor-General, is sending out the following notice to taxpayers calling attention to the sale of lands by the State for delinquent taxes of 1895, which is to be held May 3d next:

"The sale of lands delinquent for taxes of 1895 and prior years will be held at the offices of the county treasurers, beginning May 3d, 1898. Attention is called to this sale that you may assure yourself that you have not neglected to pay the tax of 1895. If you have not already done so, you should obtain a copy of the published list from the newspaper in your county publishing the same, or in the county where your lands are located, and carefully examine it for description of your own lands.

"A little care and time spent now may save you a great deal of annoyance after your lands are sold."

Every reader of The Farmer who owns real estate, whether farm lands or city or village property, should secure a list of the lands being advertised in some newspaper in his county, and make certain that his property is not among the descriptions listed for sale. No matter if he has receipts covering the year specified, he should do this, as it will save him both trouble and expense hereafter.

There is one point which, in justice

to taxpayers, should be made compulsory upon officials charged with enforcing the law against alleged delinquents, and that is to make personal service of notice upon all owners that their lands had been returned for sale for back taxes. The great injustice to owners of selling their lands without due notice would then be done away with, and the only sufferers would be the tax-title sharks and the lawyers. After personal service of a notice upon delinquents they could not complain that they had not been treated fairly, and the State would not be a party to the robbery frequently perpetrated upon land owners, and for the sole benefit of a most undesirable class of citizens.

HE KNOWS HOW THE SYSTEM OPERATES.

To the Editor of The Michigan Farmer:

Permit me to thank you for your handling of the subject "Grading of Michigan Grain," at the Institute Round-Up. I like a man who strikes from the shoulder.

But the grading of the farmer's grain is only one of many ways in which he is defrauded. Michigan wheat, as it comes from the improved threshers, will grade No. 2 in the Detroit market. The miller buys it for No. 2 and then runs it through his cleaner and makes it No. 1, beating the farmer out of from one to two cents a bushel on every load of wheat taken to the mills. The farmer's grist of wheat is tolled a sixth instead of a tenth, as the statute provides, and at that he does not get straight flour; it is mixed with a cheaper article. Ground cob is mixed with bran, and canell with buckwheat flour. The farmer tills the soil, sows the seed and patiently waits a whole year for the harvest, and then hands his grain to his local market, when the middleman, creamery fashion, takes off the cream and kindly permits the farmer to haul home the skimmed milk, with which he pays 3-cent railroad fares and the taxes for the corporations.

Washtenaw County, Mich. H. C. W.

In the paper referred to we pointed out how the miller worked it to get his share of plunder out of the wheat-grower, but in the summary given in The Farmer that was omitted for lack of space. Our correspondent points out how the scheme is worked, but does not give due credit to the amount the miller secures. It will run from 3 to 4 cents per bushel, according to his conscience. For instance, a farmer drives up with his load of wheat, and the miller says it only grades No. 3, as there is some chaff and dirt in it. Really it would grade No. 2. The price is fixed on its then condition. The miller runs it through his cleaner, pays only for the clean wheat, which would really grade No. 1, and returns the farmer the screenings. The difference in value between No. 3 and No. 1 red would at present be fully 6 cents, and that is what the farmer has lost and the miller gained. Present grades are established for the very purpose of allowing such nefarious tricks, so that the wheat buyer may profit thereby.—Ed. Farmer.)

The British Trade Journal prints an interesting summary of figures from the reports of the Board of Trade and the Board of Agriculture for 1897, regarding the sources from which the United Kingdom draws its supplies of breadstuffs. From these figures it appears that 73.5 per cent of the wheat and wheat flour required by that country were imported, only 26.5 per cent being grown in Great Britain. Of the imported supplies, it is noteworthy that only 6.3 per cent were grown in British colonies and possessions. The great bulk of the supplies, namely, 67.2 per cent, or more than two-thirds of the whole requirements, were produced in foreign countries. From the United States was imported 43.9 per cent; from Russia, 13.6 per cent, and from other foreign countries, 9.7 per cent.

These statistics show the absolute dependence of the British nation for food supplies upon foreign nations, and point out how absolutely essential it is that her navy be sufficiently strong to insure such supplies during the progress of a war, or her people would be reduced to a point of starvation.

Under the head of "Fact and Theory" the Philadelphia Record publishes some statistics regarding the prices of agricultural products, upon which figures it bases an argument to show that the value of silver and such products have no relation to each other. The figures referred to are as follows:

	Wheat	Mess	Wool.
	(No. 2 red),	pork,	Ohio X,
	per	per	per
	ounce.	bushel.	barrel.
July 10, 1896	69.2	63.5	7.75
September 26, 1896	66.0	74.3	8.25
November 1, 1896	65.6	85.0	8.50
April 17, 1897	62.5	96.5	8.75
September 16, 1897	57.4	100.5	9.50
December 16, 1897	56.6	102.2	9.00
February 23, 1898	53.6	104.2	10.75
March 10, 1898	54.3	106.5	10.75

The Record should go back to its files of 1896 and see how its theories regarding the prices of wool and other agricultural products have harmonized with results since. It strikes us its theories were about as wide of the facts as they could possibly be, and its own figures quoted above prove this.

The program for the State Horticultural Society's spring meeting, to be held at Hudson, Lenawee County, on March 23 and 24, reached us so late that we have only space to refer to it briefly. Among those who take part in the meeting are Profs. L. R. Taft, V. M. Spalding, D. C. Worcester, W. W. Tracy, C. F. Wheeler, and Messrs. J. C. Monroe, J. N. Stearns, C. F. Hale, W. M. Miller and W. W. Farnsworth. President Roland Morrill will talk on markets, and ex-President T. T. Lyon on grape-growing. The program is extensive and varied.

For the Michigan Farmer.

A WOMAN'S MEETING.

The woman's section of the State Farmers' Institute, held in Manchester was a very successful meeting. The M. E. church was filled to overflowing with an intelligent audience of refined, interested women, all of whom seemed to enter into the spirit of the speakers, and to enjoy to the utmost, the program.

Mrs. J. H. Kingsley introduced the first topic, "Woman, and Her Crowning Blessing," by a very bright and interesting paper that abounded in gems of thought and beautiful expression. "Woman has not attained her highest development and crowning happiness until she has been blessed with children. The love and care of the precious little atom of humanity entrusted to her keeping by the all-wise Father, awakens all the nobility, the overflowing tenderness, the desire for attainment to all that is noble and good that is inherent in every true woman's nature. From time immemorial the advent of a boy into a household has been heralded with much pomp and rejoicing, while that of a girl is considered unfortunate—a calamity to which the poor parents must be resigned, and endure with true Christian fortitude. Mothers, is this right? Should not the little girl receive the same joyous welcome extended to her distinguished brother?

"A true mother should consider the home the most important field for her labors, and if she does the many duties there faithfully and well, she will hardly have time for much outside work, although she should read and study in order to keep pace with her children in their advancement, and not become old-fashioned and behind the times."

Mrs. Mary A. Mayo, of Battle Creek, was introduced, and received the closest attention of her hearers while she told them in clear and forcible language of "The Mother's Greatest Need." "Love, patience and wisdom are essential to the careful guidance and training of children. Young ladies who do not love children should not marry, or if they do should cultivate such an affection. Be polite to your children, and insist upon politeness and obedience from them. Interest yourself in their pursuits and obtain

their confidence. Begin very young to teach them to trust you and your superior judgment. Become acquainted with their mates and friends, oversee their reading, and go out with them. Never let them feel that they are in your way, or that they must go from home for amusement. Make yourself and their home indispensable to their happiness, and they will some day rise up and call you blessed."

Mrs. J. K. Campbell, of Ypsilanti, led the discussion admirably, and was followed by Mrs. Frank Spaford, Mrs. L. D. Watkins, Mrs. F. E. Spaford, Mrs. Green, of Ypsilanti, and others.

The little ones of the kindergarten department of the high school gave a cunning little motion song that went straight to the heart of every mother and received an encore.

That the Woman's Section met the approbation of all that large gathering of ladies was evidenced by the raising of every hand when asked to vote in favor of a similar meeting next year.

EVELYN SPAFORD, Reporter.

BARLEY, THE SUCCESS,

a beardless variety, six rowed, hull remains tight, a good yielder, earliest of any known variety to ripen; try it and you will raise no other. Price f. o. b. 1 bu. 80c.; 2 bu. and over, 70c.; bags 12c.

E. D. FULLER, Otter Creek, Mich.

SEED OATS. Michigan Wonder, best oat grown. My seed pure, absolutely free from smut and foul stuff, 75c. per bushel; good cotton sacks free when full.

GOLD MINE is best corn grown. My seed, very choice selected, \$1 per bushel; sacks free when full.

A. H. FOSTER, Allegan, Mich.

CARMAN NO. 3 a late or fall variety, one of the greatest yielders grown, and nearly all of them marketable with very few small ones and of good table quality. Price, \$1 per bushel. Address H. W. DARLING, Arland, Mich.

FOR SALE, SEED OATS, the great Lincoln bush, or \$5 for 10 bushels. Sacks free. Cash must be sent with order. J. E. VOGEL, Lansing, Mich.

HOW to make money with a Magic Lantern or Stereopticon is explained in 250-page catalog describing apparatus & Views free. McALLISTER, Mfg. Optics, 46 Nassau St., N. Y.

LIVINGSTON'S CELERY BOOK.

A NEW BOOK written expressly for us by the most extensive grower in the United States. Twenty years' experience in Canada, Michigan, Ohio and Florida. UP-TO-DATE on all essential points. Paper cover, 50 cents; cloth, 75c., postpaid.

A. W. LIVINGSTON'S SONS, Columbus, Ohio.

(Our Seed Annual sent free on request.)

THE "Geo" Shearer fruit and stock farm 1/4 mile west from Plymouth village, 140 acres, price \$75 per acre. 25 acres in Greenfield, 5 miles from city hall, out Grand River, \$500 per acre. 180 acres, part in corporation of the city of Greenville, good for dairying, fruit or gardening. 160 acres, six miles north of Greenville on gravel road. 40 acres 1/4 mile west of Pierson, 20 acres cleared. 940 acres in Montcalm and Mecosta counties, good roads and schools, well watered, price from \$4 to \$10 per acre. Hotel property in Lakeview. Four houses and brick store 22x30, all well located and rented in Greenville. Also four acres for subdividing, close to business and built up on all sides. Address J. J. SHEARER, Plymouth, Mich.

... A ... FREE FARM

of the best quality, Rich soil, on the "Soo" Railway in North Dakota. On Streams and Lakes. Coal one dollar a ton. Your last chance to secure a government free homestead of 160 acres.

ALSO CHOICE HARDWOOD TIMBER LANDS IN WISCONSIN AND MICHIGAN.

Black Soil, Near Stations, \$3.00 to \$5.00 per acre, a Clover and Dairy Country.

Also Rich Low Priced Prairie Lands in MINNESOTA and NORTH DAKOTA.

For illustrated Book and Maps, FREE

Write to D. W. CASSEDAY, Land Agent "Soo" Railway, MINNEAPOLIS, MINN.

Big Drop in Bicycles.

Last year retailers succeeded in reducing the price of all \$100.00 Bicycles to \$75.00, and then they held the trade at home, but what are they going to do now when a new 1898 Bicycle is offered at only \$5.00, on easy conditions; other latest models outright at \$13.95 and \$19.75, on free trial? It appears the monopoly on the finest grade seamless bicycle tubing has been broken, and where the best tubing alone for a bicycle formerly cost about \$18.00, it is now reduced to less than \$4.00 and SEARS, ROEBUCK & Co., of Chicago, at these special prices are waging war on all bicycle dealers. They send a Bicycle Catalogue free to any one who asks for it, and we are told are shipping several hundred bicycles every day to every state direct to the riders at \$5 to \$19.75 on free trial before paying. If SEARS, ROEBUCK & Co. continue to wage this bicycle war throughout the season it will be a boon to all those who want bicycles, but a sad blow to bicycle dealers and manufacturers.

CANCERS CURED.

Absorption Process a conceded success. Scarcely a failure in 16 years. No Knife. No Caustic. No Blood. No Pain. Write DR. HESS, of Grand Rapids, Mich., for particulars and references. For Cancer of the breast, if not broken out, treatment can be sent.

FOR SALE, a portable saw mill and a powerful traction engine; also several good farms on liberal terms. Address F. A. SESSIONS, Ionia, Mich.

\$29.95 for this TOP SINGLE HARNESS
New 88-page catalogue shows over 500 new styles & our reduced prices. Cart \$8.25, Sully \$50, Phaeton \$53. Road Wagons and Spring Wagons. An excellent line of single and double harness, also Bicycles, \$14 and up, our \$3.95 Wheel, guaranteed highest grade and best made. We have all styles to select from. Send for Free catalogue. **MARVIN SMITH CO.** 264 S. Clinton St. Chicago, Ill.

You Must Fight
Insects and Fungi if you ever expect to grow any more good fruit. For economy, reliability and durability the "ECLIPSE" spraying outfits are positively the latest and best implements on the market. Send for catalogue. **MORRILL & MORLEY,** Benton, Harbor, Mich.

Fifteen Models
Columbias
Hartfords
Vedettes
A variety of wheels to suit any taste—a range of price to fit any pocketbook—\$125, \$75, \$60, \$50, \$45, \$40, \$35. These bicycles are built in our own factories, the largest in the world—each model the best in its class—all fully guaranteed. **POPE MFG. CO., Hartford, Conn.**
Catalogue free from any Columbia dealer, or by mail for one 2-cent stamp.

SEE CORN
KILN DRIED
Corn Advancing in Value. **BROWN'S MEDIUM EARLY YELLOW DENT.** Re-assorted, shelled, in new bags. \$1.25 per bush. No better corn grown. **J. H. BROWN, Climax, Mich.**

AGENTS WANTED
MURAT HALSTEAD'S GREAT CUBA BOOK. All about Cuba; Spain; Maine Duster; and War; great excitement; everyone buys it; one agent sold 97 in one day; another made \$13.00 in one hour. 600 pages; magnificent illustrations; photographs, etc.; low price; we guarantee the most liberal terms; freight paid; 20 days credit; outfit free; send 10 two-cent stamps to pay postage. **THE BIBLE HOUSE, 324 Dearborn St., CHICAGO.**

WE SELL DIRECT TO THE FARMER.
Steel Landside Double Board Plow, hard as glass, 16-in., \$6.
Sulky Plows, \$25.
Riding Gang Plows, \$35.
3-in. Wagon, \$39.
1000 other articles.
Catalogue free.
HAPGOOD PLOW CO., Box 506 Alton, Ill.

SHIPPED ON APPROVAL
without a cent payment. Sewell '98 Bicycles, \$14 to \$27.50. 12 000 on hand for spring trade. **600 SHOPWORN** and used wheels, \$5. to \$12. **WHEEL FREE** for the season to agents; write for particulars. **EARN A BICYCLE** and make money by a little work in your locality. **Special proposition to early applicants.** **WE OFFER THIS WEEK—100 New '97 Boys' and Girls' Wheels, H. & W. Tires, \$9.75 each.** Art Catalogue and information free. **MEAD & PRENTISS, 146 Ave. N., Chicago.**

\$20 for the Western Cultivator
with 4 or 6 shovels parallel or 12 spring tooth gangs with our patented parallel beam movement. The gangs can be moved to 12 inch apart. Pronounced by most expert farmers the most satisfactory cultivator used. Write for further information. **Keystone Farm Machine Co., York, Pa.**
Can name equally low prices on Field Rollers, Corn Planters, Harrows & Shellers.

MICHIGAN COLLEGE OF MINES.—Practical work. Elective System. The only college in United States giving its instruction solely to prepare men to aid in the development of the mineral wealth of the state and nation. Offers an excellent field for farmers' sons. For catalogues address DR. M. E. WADSWORTH, President, Houghton, Mich.

WE will pay a salary of \$10.00 per week and expenses for man with rig to introduce our **POULTRY MIXTURE** and **INSECT DESTROYER** in the country. Address, with stamp, **PERFECTION MFG. CO., Parsons, Kan.**

The Household.

CONDUCTED BY MRS. ELLA E. ROCKWOOD.

We should be pleased to have any of our readers who take an interest in household topics, send in their views and opinions upon any subject which is under discussion, or which they wish discussed. The invitation is general, and we hope to see it accepted by many. Address all letters for The Household to Mrs. Ella E. Rockwood, Flint, Mich.

For The Michigan Farmer.

MY COURTSHIP.

Wouldst ask me a question! Ah, yes, well indeed! Of course I'll sit down and kindly give heed. My courtship? Ha, ha, well I almost read by the smile in your eye what your lips have said. My courtship? Ah, well, now it does really seem that the story must be on a practical theme; It's strange now indeed, that it never grows old, For often it's heard, because often it's told. Well, I was quite bashful at first I am sure, And though I do say it myself, I was pure, But I was quite young when at school I first met her, And do you believe me? I could not forget her. That is, there was something, you know what I mean! It caused me to breathe quick with heart throbs between. Didst ever experience a feeling like this? Though hard to express, it's akin to bliss; And when witching fancies and dreams draw her near, The rule is, the story doesn't often stop here. Well, now, that's a fact, so it proved in our case, For, as time after time I beheld her sweet face, Through storm or through sunshine whatever the weather, Whatever the hindrance, we were drawn together. And often occasions for meeting devised. So our courtship commenced, and you'll be surprised That it's thirty years now since this all took place; But the ties have grown stronger, and sweeter her face— Perhaps you may think a long time we have tarried, But, twenty-five years of that time we've been married.

WILBERT J. GODFREY.

INDUSTRIAL EDUCATION.

(A paper by Mrs. Irma T. Jones, of Lansing, read before the Women's Section of the Michigan Round-Up Institute at the Agricultural College, Feb. 24th.)

Instruction is not always education; neither does a knowledge of facts always render available the latent faculties of the individual. Laying aside for a moment the so-called "bread-and-butter" idea of what education should be, it may be said that muscle helps brain even as brain helps muscle. The power to do something useful enlarges individual life and happiness quite as surely as book knowledge is supposed to increase one's store of facts. The value of skilled muscle, of the trained eye and hand to the community is ordinarily far beyond that of the limited mental training received from the schools by the average individual. Unequal development in plant or animal life fails to satisfy the growing ideals of modern times, so the more thoughtful parents and educators are constantly seeking methods and courses of study which will not enfeeble the body while the brain-power is being developed, that will not warp the moral nature while the intellect is being trained.

Industrial education in its best estate promises much as a solution of some of the most difficult problems of our times. To meet and overcome the destructive tendency of any civilization which passes the constructive period of pioneering, our American life may well build up and encourage every agency which strengthens the constructive energies of mankind. The words of the poet, "Build the more stately mansions, O, my soul," are in harmony with the subtlest and most profound philosophy of life. As long as individual or national life reaches out to build, to broaden and to cultivate we may expect growth, vigor, endurance. Only when the period of this activity is past and individuals or communities cease building, cease improving does progress end and death begin. Industrial education, therefore, promises much toward the solution of many of the difficult problems which confront the world to-day.

It has been well said that "Education is not the preparation for life, it is life. The child is not made for the school, but the school for the child. If right habits, as, for example, keenness of observation, order, neatness, self-control were formed in early childhood how much would be accomplished in the way of perfect development." Whatever instruction gives the child

the power to think, whatever forms in him the essentials of an upright character, and working knowledge of the vocation he must follow gives him a liberal education whether the individual has attended school one year or five, has been taught in a district school or a Pratt institute.

In seeking a definition of industrial education I would call it the development of faculty begun as soon as youthful steps can be trained to help father or mother, and continued by means of the kindergarten, of free-hand drawing, Lloyd or elementary manual training, simple lessons in cooking and sewing, until at the proper age a well-equipped manual training school receives the young man and a college provided with scientific instruction in home-making furnishes the young woman with the practical training necessary to their respective vocations.

Happy helpfulness, stimulated by appreciative words from parents to comfort and encourage the heart of childhood, is the natural beginning of industrial education. To love work, to have the habit of industry and to find pleasure in work well done means, other things being equal, success, happiness and a useful career. What a pity that homes do not oftener recognize this fact, and that public schools do not meet wise home-training or its lack by supplying kindergarten methods to strengthen still further youthful interest in the doing of useful things. Activity is a law of youthful life, and from being a source of perplexity may be so trained and directed as to become a means of development and a constant pleasure. Free-hand drawing and the use of tools for a part of each day's school work, aside from their future worth to the embryo citizen, would be a blessing to many restless children.

A practical farmer said, recently, "When I find my cows taking on too much fat I change their diet," but few parents or school officers recognize the needs of the young and regulate the conditions of growth with the same care. Balanced rations, wholesome environment for his stock are considered necessary by many a man who never considers whether his children have an equal chance to thrive mentally, morally and physically.

On the other hand the rapidly changing conditions in our American world of industry demand for our youth a better equipment for self-support. Not mind power alone is needed, but the power of the skilled hand, the trained judgment which industrial education is expected to supply. The boy whose father cannot give him employment in store, shop or office is handicapped at every turn in the race for earning his livelihood. More and more the problem what to do with our boys is becoming serious, and the same is true in regard to our daughters.

How to combine industrial education with the theoretical curriculum of the public schools in a way to secure best results is a grave problem. It is essentially a moral question and a question of economics. Evidently its solution can only come by such an enlargement and adaptation on our public school system as will permit some form of industrial training in all institutions supported by taxation.

Thought without the power to use it is of little value. Beautiful words about the sanctity of the home and the nobility of woman's mission will not sustain life nor relieve fainting burden-bearers. Whence shall come relief? Only such education of the rising generation as will fit men and women for the work which lies before them will help to make every dollar earned bring its full measure of value to the enlightened wage-earner. More knowledge and better food in the home mean more vigor and courage in the world of industry, less sickness and less enforced idleness. How can the burdens of taxation or of a disturbed labor market be as surely lightened as by a movement for the instruction of the future citizens of our republic in the art of living healthfully, economically and intelligently.

Have farmers' wives nothing to do in relation to the betterment of conditions which make or unmake the happiness of the homes to which they are so loyal? Out from the safe shelter of comfortable homes can women reach no helping hand to the multitudes suffering because of ignorance? Can they speak no word to mold public sentiment in favor of a movement so beneficent and far-reaching? The womanly woman is not she who can rest in selfish indifference while sick-

ness and poverty, ignorance and misery remain unhelped. Do we not agree that woman's mission is to gather the light and sunshine and knowledge which come to her from life's munificence, and, like the perfume of the Easter lilies which she loves, fling them back in blessing? Nor is the true womanly heart at rest until home and school and society reap the golden fruitage of all nineteenth century opportunities. What nobler task can women find than to work together to promote the cause of industrial education?

A PLEASANT LETTER.

I have been a silent but interested reader of the Household for some time. I also live in the "backwoods," but we are thoroughly civilized just the same. I have been married nine years and have three children, a little boy of six, a little girl of three and a baby girl six months old. Husband works in the woods winters and I have his dinner to put up, but I do not think it a very hard task. He carries sandwiches most every day, with sponge cake, sauce, a few baked beans and pie or pudding, cookies or doughnuts for a change.

And now I am going to tell you how I dress my little ones. For my boy I make little tight-fitting coats for winter, as I think they are much warmer than blouses. He has two of these for every day, and by taking a damp cloth and wiping them off occasionally I keep him presentable most of the time. I make my little girl's dresses out of Acme flannel. It does not shrink when washed, and by frequent use of my damp cloth and large dinner bibs she can wear one a week. For baby I make little flannel skirts and outing flannel dresses and plenty of bibs, as she is teething and drools a good deal. Although I do not break my back over the wash tub or ironing board, I keep my babies clean. I have to feed my baby. I generally do this at the table, and do not think a little mashed potato or a little bread and milk will hurt any baby. I never give her anything rich or sour, and I do not think you can find a healthier baby than she. I usually spend the evening reading, sometimes aloud to husband when he has time to listen. I do not think my time spent foolishly either. I might do fancy work, but we live in a small house and I have no place to put it.

As my little girl is saying, "Mamma, I want a piece of bread and butter," I will close.

A NORTHERN WIFE.

NANCY JANE EXPLAINS.

I do not know as I should have come again just now but for that letter from Antrim county. It was especially interesting to me, and as it was pointed in my direction, too, and gave me an invitation to come again I will do so. Surely when I said what I did about living in the backwoods I meant to cast no reflections upon anybody. I simply used the expression because I had heard it used by others. You may remember that way back last November some one writing to the Household said of me that I must live in the backwoods, as my name indicates. So you see I have to take it too.

I am not exactly a pioneer, but have handled a good many burned sticks, etc., down in the "breaking" helping husband to clear up. Some may be ashamed to tell of working outdoors, but I do not feel that way. Whatever is your duty do it, and if this be to help your husband a little it is nobody's business. And if some one comes in and catches him wiping dishes for you that is nobody's business either. That is the way we do here. If I need help I ask, and always receive it, and if my husband needs help out doors he is never afraid to ask for it. If possible (and I always intend to make it so) I go, whether to drive team on the mower, hayrake or to turn the grindstone or help shock hay. We work, but we have resting spells too, and intend to enjoy life as we go along.

I certainly think people who live in our newer counties enjoy themselves fully as well as anyone, and could we dispose of our home here we would not hesitate to move up North and bring up our children among the residents of that country.

When I read all that baking done by Genesee Farmer's Wife I wondered if I do as much. I think not. We are in favor of living on farm products as much as possible, and use a great deal

of canned fruit, but when we have fruit we do not expect pie, cake or cookies, as a rule. Plenty of good bread and butter and fried cakes or cookies on hand when needed, but the children do not "piece" them up. That is the way we do.

NANCY JANE.

PREFERS TO ORDER BY MAIL.

I have just finished another little order to send to Chicago. It is a regular winter day, cold, snowing and drifting badly. So you see it is much easier for me to sit here and write an order than to get the little ones ready and drive twelve to twenty miles to get the articles I want and run the risk of smothering them with wraps or their catching a cold to last them the rest of the winter.

I do not know the size of the town Huldah has no trade in, but we know our editor does not have to trade in a "cne-horse" town. If she did I think a part of the pity would be for the farmers' wives and not all for the poor merchant who is getting from three to five times as much for some things as we pay for them in Chicago. Some will say it is such an accommodation; yes, they are very accommodating. They sit near the window and watch you drive into town. They see you scramble out of the rig, hitch and blanket your horse, carry the little ones to the steps out of the snow or mud, then go back after the butter and eggs. Then maybe they will meet you at the door with "Good morning Mrs. —; quite blustery to-day!" Then I suppose we must forget how cold our fingers are and speak very pleasantly and begin to scan the shelves for what we want or "something that will do." But butter cloth will not always do for cheese cloth nor a piece of gauze with precious little "fuzz" on it—for which we have to pay five cents a yard—for outing flannel. Then you must trade every cent of it out. They couldn't pay you any money, not even enough to buy a little medicine at the drug store. You see I do not believe in running a store bill.

Now don't think I do all my trading in Chicago. Far from it. I buy those things that save me money after freight is paid. As far as being carried away by the pictures in the catalogue is concerned, I don't think that counts with the careful purchaser, and the catalogue is worth considerable as a guide in buying at home.

Now a few words about the children. Bundle up the little ones as you would to go out of doors, let them take their playthings and play for an hour or so in an unused room. They will come back refreshed and not seem half so noisy and you will have a good rest while they are gone. If they get a big bump make haste for the butter and rub some on. It will keep the flesh from turning dark.

Yes, Mrs. A. Do, I take our hens their warm breakfast every morning when I am well enough, if not I send it to them. We are rewarded with eggs every day. I also give them a basket of clover heads and leaves, cabbage, raw potatoes as well as cooked, and egg shells that are always saved and crushed for winter. You would be surprised to see how they enjoy a change of diet.

I read all the pros and cons on feeding the baby with much interest, and if some one will tell me just how to prepare food for baby to eat before it is weaned, I for one will be very thankful.

DEWDROP.

Mrs. S. E. Wilcox writes that those who send to her for patterns need expect no reply if they do not enclose stamp.

When writing advertisers mention Mich. Farmer.

TRY IT FREE
for 30 days in your own home and save \$10 to \$25. No money in advance.
\$20 Kenwood Machine for \$25.00
\$50 Arlington Machine for \$19.50
Singers (made by us) \$5, \$11.50, \$15 and 27 other styles. All attachments FREE.
We pay freight. Buy from factory. Save agents large profits. Over 100,000 in use. Catalogue and testimonials FREE. Write at once. Address (in full),
CASH BUYERS' UNION
154 West Van Buren St., St. 517 Chicago, Ill.

COOK STOVES.
\$4.90 to \$18.05.
STEEL RANGES \$19.00 AND UP.
Heating Stoves \$2.95 and up.
Sent to any address to be paid for after received. For full particulars send for our FREE STOVE CATALOGUE. Address
SEARS, ROEBUCK & CO. (Inc.) CHICAGO, ILL.
(Sears, Roebuck & Co. are thoroughly reliable.—Editor.)

Plant Some Cotton in Your Garden

just to see it grow and show your friends. It grows in Michigan better than you may think. For packet cotton seed send 10 cents in stamps or silver to

W. D. TELLER, Nottawa, Mich

MOTHERS Your Children cured of Bed-wetting. Sample free. Dr. F. E. MAY, Bloomington, Ill.

BE PROMPT! AN INSTITUTE EPISODE.

At the beginning of the institute season our editor urged the readers of the Household to attend the farmers' institutes, especially the day of the women's section. Well, I did not need much urging, but it takes a good deal of planning beforehand for us to get away for two days at a time. However, we managed it by switching in one separating and side-tracking a churning.

The distance, roads and weather were not in our favor for driving, so we went to the nearest station, left our horse and took the train. I had carefully compared the program with the time card, and found the former gave Mrs. Mayo from 1:30 to 3:00, followed by discussion till 3:30. The latter showed the train would leave at 3:22, so I thought I would have time to hear nearly all of her talk. I was there on time, and so was Mrs. Mayo. After a long time it was announced that they were waiting for the singers who were to sing at the general session before coming to the women's section. I was just about ready to tell them I would sing for them if a song was all they were waiting for, when the musicians arrived, and it was just about forty minutes past the time for opening when Mrs. Mayo was finally introduced and began to talk. To speak plainly, I was almost mad. I kept one eye on the speaker and the other on the clock at the rear of the room until I was cross-eyed, stayed just as long as I dared and then had to leave before she had finished her first subject. I enjoy music as much as anyone, but we can hear that any time—especially the local talent—while we only hear the institute workers once a year. I would like to make the motion that all those having charge of institute work or management, commit to memory the words "Be prompt," and live up to them. If there is only one singer in town let him sing at the other session if they want him, but when the time comes to open the meeting, open it, and do not waste any valuable time waiting. I can scold, but I will count ten first.

(That was a trial indeed. PEGGOTTY. We are sure it was not Mrs. Mayo's fault that the meeting did not begin on time, for she is promptness personified.—Ed.)

THE OTHER SIDE.

While I think the article in a recent Household on taking care of things was all right and very much to the point, more might be said on the subject of saving. It seems to me that, as a rule, men are not any more saving than their wives. A woman will save a little by hard work and economy, meaning to get something she needs. If she would mention it to her husband he would say, "Go and get it." Now if the necessary money accompanied these orders, she would gladly do so. But generally it does not, and what woman likes to purchase things and have them charged?

In many ways men are wasteful. By keeping fat hogs long after they are ready to sell; in keeping old horses which are useless and ought to be in their graves; in going to auctions and buying useless things because they can have a year in which to pay for them; and last, but not least, using tobacco and whisky. Here is an incident which came to my notice. The daughter of a very poor man needed a pair of shoes, in fact she could not go to school until she had them. A kind neighbor gave him work so he could earn them, but knowing his habits she gave him an order on a shoe store. If she had given him the money he would have spent it for tobacco. And another case where the husband is always deep in lawsuits, whisky and tobacco, while his children are barefooted all winter and his wife and daughters split the wood. I am not hunting up unusual cases, and I hope the saving men are in the majority. But I am afraid they are not.

ELBERTA.

(I agree with Elberta exactly that the majority of women are more saving than men, but there are exceptions to every rule, and the article referred to was intended for the woman who is thoughtlessly wasteful in not taking care of things.—Ed.)

A correspondent asks for a good recipe for Johnny cake. Another wants to know how to make a rag rug which is to be knitted in triangular sections and sewed together.

A CHATTY LETTER FROM EVALINE.

Mrs. A. Do's letter in Jan. 22 Household brought to my mind the friends of former years who have written in my autograph album. Where is there to-day a more treasured relic than the old-time autograph album?

I think Estella's plan for an aid society is very beneficial and interesting, and if every society of the kind would adopt those by-laws there would be less gossiping going on. There is an aid society in our vicinity which would do well to adopt similar by-laws. I remember asking a lady friend why she did not attend the society, and her remark was, "I do not care to go, for about all they did when I did go was to gossip." Of course there are a few who are so apt to gossip that they even carry the habit with them to these societies, but what is more disgusting and hurtful to a society than to see a few gathered in one corner laughing and gossiping about this one or that! And I think with Mrs. Mac. that if some would cultivate the reading of good literature and try to divert their minds to something more ennobling they would find little desire or time for gossip. I for one hope all societies will adopt Estella's plan. I think those traveling libraries must be very interesting.

I feel so sorry for Gail Leslie and Kitty D. This life must seem so wearisome to them at times, and I often wonder how such as they can be cheerful. Perhaps they think as the little verse, which is as follows:

"There are hours the heart grows weary,
All life's joys seem torn away,
Pass them! note the bright hour, only,
Gather the sunshine while you may."

If all of us would do as this little verse says how much pleasure we would find in life.

How my heart goes out in sympathy to the shut-ins. Those who have good health have much to be thankful for.

EVALINE.

SHORT STOPS.

Frank's wife writes: When my lace curtains look dirty I take them out upon a nice snow bank, and with a clean pair of mittens rub snow upon them and you have no idea how clean they will soon be; they will look like new.

I clean my carpets with snow, too. Have the room cold and remove the furniture. Throw snow over the floor and sweep it up again; repeat until the snow is not soiled. It cleans all but grease spots and a little gasoline will remove these.

I make cake with snow, too, without eggs. Beat butter and sugar together, add milk and flour with baking powder as usual, flavor to taste, then get a heaping cupful of light new-fallen snow and stir it in the batter quickly. Bake in a hot oven and it will be nice and white. It is a good cake to make when eggs are scarce.

Marvel writes: I was pained to read that article about an unkind husband, but feel sure there are many more who are kind than unkind. Those whom God has joined together should do all in their power to make each other happy, and in no way can this be so surely accomplished as by kindness and love. Each should do their part.

When there is anything to be bought or sold, a building to be erected, or papers to subscribe for, talk it over first and decide together what is best. I know of certain ones who do this. The husband is always ready and willing to help when around the house and on Monday mornings the housewife finds tubs, wringer and water ready for use. The churning he positively forbids her to do. When the wagon starts for the weekly trip to town, it does not carry the farmer alone, but his happy wife sits by his side. When they return, each article that has been purchased as well as the butter and eggs that have been sold are all put down in the account book.

MAKING BREAD.

Cook six good sized potatoes and mash fine; add the water they are cooked in and enough more to make one quart. When cool add flour to make a batter (not too stiff) and half a yeast cake, soaked until soft. Keep in warm place to rise; when light stir down. Do this twice, then set in a cool place. This will make at least 21 loaves of bread. When you want to bake take one quart mashed potato, one cup flour (mash the potatoes right into the flour so as to scald it) and while hot add two quarts of lukewarm water, one-half cup of salt, one cup sugar and one cup of the yeast. You may think it ought to have more flour, but

it is all right as it is. Set at night, and in the morning it will be foamy on top. Mix stiff with flour and set to rise, then knead down and when it rises the second time put it into loaves. When these are quite light bake—one hour if the loaves are large. I use a jar to set the sponge in over night, and cover it well to keep it warm.

This may seem a great deal of trouble; it did to me at first, but when my bread proved so nice I felt repaid and now bake this way entirely.

I. Q.

TANNING SKINS.

To tan a dog skin with the hair on use equal parts pulverized alum, common salt and bran. Spread this mixture plentifully and evenly on the flesh side, fold from the outsides to the center, then roll up and lay away, looking at it once or twice a month to be sure all parts are being affected alike. When you have plenty of time, work and scrape the hide until dry. The more it is worked and rubbed the softer it will be. The hide may lie in the salt preparation until next winter without damage.

If any one has a speedier way than

this I would be glad to hear of it. This does the work well but is quite laborious.

JULIUS GARRETT.

In reply to a query published some time since as to how wheat may be prepared to use instead of oatmeal, M. A. S. writes that this may be done by first cleaning it thoroughly then grinding it in the coffee mill. The day before using cover it with cold water (the quantity needed for breakfast) and in the morning cook it for half an hour, adding a little salt and more water if needed. Serve the same as oatmeal. This is as recommended by the Ralston Health Club.

CONTRIBUTED RECIPES.

Choice Graham Gems.—Beat together vigorously until full of air bubbles, one pint of unskimmed milk (very cold, colder the better), the yolk of one egg, a little salt, two teacupfuls of graham flour, added a little at a time. When the mixture is light and foamy throughout, stir in lightly and evenly the white of the egg, beaten to a stiff froth; turn into heated irons, and bake in a rather quick oven.

VIOLA.

WORKING WOMEN WHO SUFFER.

Should Get Mrs. Pinkham's Advice—The Whole Truth can be Told to her Because she is a Woman.

The suffering and pain endured by some working women is almost past belief. Here is a letter from one of the multitude of women who have been restored to health and usefulness by Mrs. Pinkham's advice and medicine:

DEAR MRS. PINKHAM:—I feel as though your advice had lifted me from the grave. I must have been very near it. I suffered terribly at time of menstruation, was constantly troubled with cold hands and feet, was extremely nervous, could not sleep well, was troubled with frightened dreams, had heart trouble and a feeling as though my breath was going to stop, also had leucorrhœa. I tried to get help but all remedies failed, until I wrote to you. I cannot thank you enough for your kind advice, and I wish to tell every one the great good your remedies have done me.—TAMMA C. HOOPER, Wolfsville, Md.

Lydia E. Pinkham's Vegetable Compound for a quarter of a century has been helping women to be strong and well.

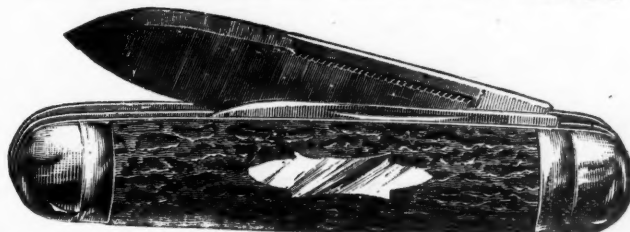
The following statement from Miss H. PATTERSON, of 2531 Lawrence St., Philadelphia, Pa., should interest all working women who are troubled with female complaints:

"DEAR MRS. PINKHAM:—I must write and tell what your medicine has done for me. I am a working girl and have to stay at my work all day. I suffered greatly with bearing-down pains and backache. I was advised by a friend to try your Vegetable Compound. I did so and can say positively I am cured. I have recommended your medicine to all my lady friends, and would advise any of my sex suffering from female weakness to give Lydia E. Pinkham's Compound a trial, for I know it will cure."

Mrs. Pinkham invites all women troubled about their health to write to her at Lynn, Mass., and secure her advice free of all charge. All such letters are seen and answered by women only.

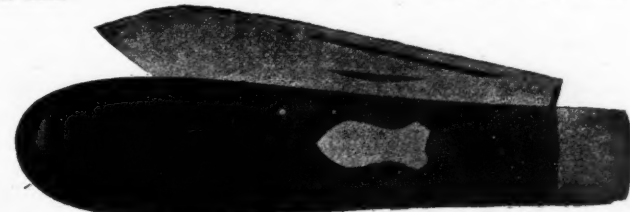
Ask Mrs. Pinkham's Advice—A Woman Best Understands a Woman's Ills

POCKET KNIVES.



The above represents our 2-blade staghorn handle, brass-lined knife, which is made of the best material throughout, and thoroughly warranted. The steel in these knives is of the very best grade made. THEY ARE ALL RIGHT. OUR PRICE TO SUBSCRIBERS IS ONLY 50 CENTS, POSTAGE PAID, AND IS 25 CENTS LESS THAN THEY CAN BE BOUGHT FOR ELSEWHERE.

The knife and THE FARMER, \$1.50; the Knife and two subscriptions to THE FARMER, only \$2.00; or sent free for only two yearly subscriptions at \$1.00 each.



No. 2 Knife is a 2-bladed man's or boy's knife, solid ebony handle, same steel as in one above. No better made. Our price is only 30 cents, postage paid, or with THE FARMER one year for only \$1.30; or the knife and two subscriptions to THE FARMER, only \$1.80; or sent free for only one new subscription at \$1.00, not the sender's own.

Our No. 3 knife is a fine good-sized single-bladed knife (blade 2 3/4 in.), same steel as in those above—THE BEST. Our price, ONLY 20 cents, postage paid.

Address all orders to

THE MICHIGAN FARMER, Detroit, Mich.

Legal Department.

CONDUCTED BY EARL D. BABST,
56 Moffat Building, Detroit.

W. L. B. Williamston, Mich.—We cannot advise you in your matter; too complicated as it now stands. Secure legal advice in your vicinity.

Tombstone Personal Property.—B. K. B. Muir, Mich.—Lot in cemetery has reverted to association under provision of by-laws. No person buried on lot. If B buys the lot of the association will the tombstone pass with the lot?—No. Tombstones belong to a peculiar division of property. They belong to the owner of the right of burial, and upon his death to his family. Owner of right of burial may remove tombstone.

Lumber Camps—When Personal Property.—J. P. S. Kenton, Mich.—Can a person lawfully remove the roofs from old lumber camps when another party owns the land? The answer to above question depends whether the camp has been so attached to the soil as to make it part of the realty. If the camp was erected with the intention of making it part of the realty the roofs would belong to owner of soil. On the other hand, the camp may be personal property and subject to sale separate from soil, depending upon the intention with which it was built, not the secret intention of the builder, but the evident intention as gathered from all the facts and circumstances. 2. Can I charge rent for camp standing on my land?—This question presupposes that camps are personal property, and in such case rent may be charged.

Pay and Duties of Clerks of U. S. Senators and Representatives.—J. W. F. N. ley, Mich.—Do our congressmen have clerks at \$100 per month, by the year, paid out of government money, and if so, what are their duties?—Senators, who are not chairmen of committees, are allowed annual clerks at \$1,500. Members and delegates of the House of Representatives, who are not chairmen of committees, since April 1, 1893, have been allowed to certify to the clerk of the House monthly a sum not to exceed \$100 for clerk hire, during session. This clerk hire is paid out of the contingent fund of the House. The duties of these clerks are not defined, but they perform all sorts of clerical duties which they may be directed to do.

Unrecorded papers afford no protection except to parties and those having notice.—R. B. Gratiot Co., Mich.—A held note against B. A owed B more than the amount of interest due at maturity of note. B wished A to renew and indorse interest "paid." A refused, sued B, got judgment, levied on land and sold same by sheriff's sale. B had sold land to C one year before sheriff's sale, but deed was not recorded. What can they do with the land or with B? Can they give the purchaser at sheriff's sale a deed when the equity of redemption expires and beat C out of the land?—Yes, unless C pays the amount of levy and clears the title. An unrecorded deed is no protection except between the parties to the deed and those having notice of its existence. The above situation should be a lesson to every reader of this department. There is no virtue in unrecorded papers.

Carrying Weapons.—T. E. S. Davison, Mich.—What is the law as to carrying concealed weapons? What would be the offense in carrying a revolver in a holster strapped on the outside of the clothing? What are the penalties?—Section 9450 of Howell's Statutes says, "if any person shall go armed with a dirk, dagger, sword, pistol or other offensive and dangerous weapon, without reasonable cause to fear an assault or other injury, or violence to his person, or to his family or property, he may, on complaint of any person having reasonable cause to fear an injury or breach of the peace, be required to find sureties for keeping the peace, for a term not exceeding six months, with the right of appealing to the circuit court."

Revising Divorce Decree Regarding Property Direct to Wife.—W. W. Ashland, Mich.—I. A husband and wife are divorced. The husband had no property at the time. The wife is given the custody of one little girl by the court. If the husband comes into property can the wife come on him for the support of the child, and if so how far back can she get pay?—The proper course for the wife to pursue is to petition the court which granted the decree to revise and alter the decree concerning the maintenance of the child. It lies entirely within the discretion of the court as to what may be the provisions of the altered decree. 2. Can a man deed his property to his wife without first deeding to a third person?—Yes, provided the transfer is not made in fraud of the husband's creditors.

The Markets.

WHEAT.

The market has been devoid of interesting features the past week, but the tendency is certainly toward a lower range of values at present. Whether they are to be permanent or not rests largely upon the weather during the next three weeks, the receipts at foreign ports from other countries, and the ability of Mr. Leiter and his friends to sustain values through their large holdings. The pleasant weather, giving promise of an early and favorable spring, is against them; but there are too many contingencies possible between now and May 1st, to allow one to surely predict the future value of wheat.

The following table exhibits the daily closing sales of spot wheat in this market from February 25 to March 17 inclusive:

	No. 1	No. 2	No. 3
	White	Red	Red
Feb. 25.....	96 1/2	96	92 1/2
" 26.....	96 1/2	96	92 1/2
" 27.....	96 1/2	96	92 1/2
" 28.....	96 1/2	96	92 1/2
Mar. 1.....	96 1/2	96	92 1/2
" 2.....	96 1/2	96	92 1/2
" 3.....	96 1/2	96	92 1/2
" 4.....	96 1/2	96	92 1/2

" 5.....	97	95 1/2	94 1/2
" 6.....	96 1/2	97 1/2	94
" 7.....	96 1/2	97 1/2	94 1/2
" 8.....	96	97 1/2	94 1/2
" 9.....	96	97 1/2	94 1/2
" 10.....	94 1/2	96	92 1/2
" 11.....	94	95 1/2	92 1/2
" 12.....	93	95	91 1/2
" 13.....	94	95 1/2	92
" 14.....	93	95	91 1/2
" 15.....	94	95 1/2	92
" 16.....	93	95	91 1/2
" 17.....	93 1/2	95 1/2	92 1/2

The following is a record of the closing prices on the various desks in futures each day during the week:

	May	July	Aug.
Friday.....	96 1/2	86	83
Saturday.....	96 1/2	85 1/2	82 1/2
Monday.....	95	85	82
Tuesday.....	95 1/2	83 1/2	81
Wednesday.....	95 1/2	82 1/2	80
Thursday.....	95 1/2	82 1/2	80

The visible supply of wheat on Saturday last in the United States and Canada was 32,415,000 bu, as compared with 33,012,000 bu the previous week, and 41,449,000 bu at the corresponding date last year. The decrease for the week was 597,000.

Broomhall, of the Corn Trade News, says the Argentine surplus has been reduced to 24,000,000 bu., and that the continent of Europe is still taking cargoes now on passage.

Latest reports from France mention extremely changeable weather with rather heavy rains, but finer weather is predicted. Generally speaking, people seem satisfied with prospects for the growing crops, which are now very forward; there are some complaints but they refer chiefly to the great growth of weeds in certain parts. Farmers continue to offer wheat very meagrely, and two or three more cargoes of Pacific wheat off coast have been ordered to French ports, but French buyers now show less eagerness to secure these white wheat cargoes than had been expected.

The condition of winter wheat in Illinois, Indiana and Ohio, says the Farmers' Review, is uncertain and reports are conflicting. This is not strange when the character of the winter is considered in conjunction with the conditions that prevailed at seeding time. The drought last fall delayed germination, and in consequence the stand was poor and thin when winter began. In the northern part of Illinois the fields were well covered by snow during the most severe temperature of the winter, but in the central and southern parts of the state and in Indiana the ground has been bare most of the time and the plant has suffered from the alternate freezing and thawing weather which prevailed during February.

The Liverpool Corn Trade News says the world's shipments of flour and wheat last week were as follows: America, 4,596,000 bu; Russia, 1,600,000 bu; Roumania, 288,000 bu; India, 176,000 bu; Argentina, 848,000 bu; Australia, 26,000 bu; various, 640,000 bu.

The central statistical committee have just published their final estimates of the Russian spring crops. Including their recent estimates for winter wheat crops the result is: 1897—Wheat, 339,200,000; rye, 608,300,000; 1898—Wheat, 307,600,000; rye, 729,600,000. Heavy snows are reported in the northwest, but the temperature is seasonable and the snow will be a benefit rather than otherwise. Southwest the weather is perfect.

The Buenos Ayres Standard thinks Argentina will have 1,200,000 tons of wheat, or 40,000,000 bu, for export this season, besides 75,000,000 bu of corn. This estimate for wheat is fully 10,000,000 bu more than previous estimates.

DAIRY PRODUCTS.

BUTTER.

The local butter market holds very steady, with fancy dairy really the firmest of the various grades. In other markets creamery has declined since a week ago, and we think the probabilities favor a drop in prices here if the weather holds good. Quotations in this market on Thursday were as follows: Creamery, 13@20c; fancy dairy, 16@17c; fair to good, 13@15c; common, 12c; low grades, 8@10c per lb. At Chicago we note a decline in all grades, with a slow and dull trade at the decline. Quotations on Thursday were as follows: Creameries, extras, 18 1/2c; firsts, 16@17c; seconds, 13@14c. Dairies, extras, 16c; firsts, 12 1/2@14 1/2c; seconds, 10 1/2@11 1/2c. Ladies, extras, 11 1/2@12 1/2c. Packing stock, 9 1/2@10 1/2c; roll butter, 11@11 1/2c. The New York market is also lower, although receipts have fallen off. The mild weather had a decided influence in causing a decline, and buyers are only purchasing to meet present demands, as they expect a further drop in values before the bottom is reached. The market was a little steadier on Thursday, with quotations at the following rates: New York—Creamery, Western, extras, per lb, 19c; do firsts, 18@18 1/2c; do, thirds to seconds, 15@17c; State, finest, 18 1/2@19c; do, seconds to firsts, 15@18c; State dairy, half-firkin tubs, fancy, 18c; do, Welsh tubs, finest, 17@17 1/2c; dairy tubs, seconds to firsts, 14 1/2@16 1/2c; imitation creamery, extras, 16 1/2@17c; do, seconds to firsts, 14@15 1/2c; factory, extras, 14 1/2@15c; do, seconds to firsts, 13 1/2@14 1/2c; do, low grades, 12@13c; rolls, choice, 14 1/2c; do, poor to prime, 11 1/2@13 1/2c. Old butter—Creamery, extras, summer make, finest, 17c; do, common to prime, 14@16c; State dairy, tubs or firkins, finest, 16 1/2@17c; do, poor to prime, 13@15c; Western, factory, 17 1/2@18c. At Elgin this week fancy creamery sold at 18 1/2c per lb, a drop of 1c since a week ago.

CHEESE.

Jobbers in this market have dropped 1/2c on their quotations this week, and the market is very dull at the decline. What they are paying first hands seems a disputed question, but it is evident there is considerable variation, running from 1 to 2c below their selling quotations, which are 10@10 1/2c for the best full creams. At Chicago the market is unchanged both in tone and prices, the demand being very limited and values weak. Quotations on Thursday were as follows: Young American, 7 1/2@9 1/2c; twins, 7 1/2@8 1/2c; cheddars, 7 1/2@8 1/2c; Swiss, 10@11 1/2c; Limburger, 7@11c; brick, 7@10 1/2c. The New York market shows a decline of 1/2c on the best September makes as compared with a week ago. The demand for the home trade is very limited, but exporters took a good deal of stock the past week, some 9,784 boxes. They must have got concessions, as foreign advices are very discouraging. Quotations on Thursday were as follows: State, full creams, large, fancy, September, 8c; do large choice, 7 1/2@7 3/4c; do fair

to good, 7@7 1/4c; do common, 6@6 1/2c; do colored or white, small, fancy, September, 8 1/2c; do small, choice, 7 1/2@8c; do common to good, 6@7c; light skims, small, choice, 6@6 1/2c; do large, choice, 6c; part skims, small, choice, 6c; do large, 5 1/2c; do good to prime, 4 1/2@5c; do common to fair, 3 1/2@4c; full skims, 2@3c.

At Liverpool on Thursday American cheese was quoted dull at 38s 6d per cwt for the finest white and colored, a decline of 6d (12c) since last week's report.

DETROIT PRODUCE MARKET.

Detroit, March 17, 1898.

FLOUR.—Quotations on jobbers' lots in barrels are as follows:

Straights.....	\$4.75
Clear.....	4.50
Patent Michigan.....	5.25
Low Grade.....	3.50
Rye.....	3.25
Buckwheat.....	2.00
Granulated Corn Meal.....	2.00

CORN.—The visible supply of this grain on Saturday last in the United States and Canada was 42,644,000 bu, as compared with 41,471,000 bu the previous week and 25,495,000 bu at the corresponding date in 1897. Quotations in this market are as follows: No 2, 30 1/2c; No 3, 30 1/4c; No 2 yellow, 31c; No 3 yellow, 30 1/2c; No 3 white, 31 1/2c.

OATS.—The visible supply of this grain in the United States and Canada on Saturday last was 12,854,000 bu, as compared with 13,163,000 bu the previous week, and 13,528,000 bu at the corresponding date in 1897. Quotations are as follows: No 2 white, 29c; No 3 white, 28 1/2c. Market quiet.

RYE.—The visible supply of this grain in the United States and Canada on Saturday last was 3,408,000 bu, as compared with 3,576,000 bu the previous week, and 3,616,000 bu at the corresponding date in 1897. No 2 has declined to 51c per bu, in sympathy with wheat.

BARLEY.—Quoted at 75@85c per cwt for State.

FEED.—Jobbing quotations on carload lots are as follows: Bran and coarse middlings, \$14; fine middlings, \$15; cracked corn, \$14; coarse corn meal, \$13; corn and oat chop, \$12 per ton.

CLOVER SEED.—Market lower. Prime spot has sold down to \$2.90, and No 2 to \$2.60@2.70 per bu. Alsike has sold at \$3 @4.00 per bu, according to quality and condition.

BUTTER.—The market is steady and unchanged. Receipts are quite large, but the bulk is only of ordinary quality. Quotations are as follows: Creamery, 18@20c; fancy dairy, 16@17c; good dairy, 13@15c; low grades, 8@10c per lb.

CHEESE.—Quoted at 10@10 1/2c for full cream. Market dull and weak.

EGGS.—Market lower under large receipts. Now quoted at 10@10 1/2c per doz.

POULTRY.—Dressed chicken, 8@8 1/2c; dressed geese, 8@8 1/2c per lb; dressed turkeys, 10@12c; dressed ducks, 8@9c per lb; live about 1@2c lower.

TALLOW.—Quoted at 3 1/4@3 1/2c per lb.

RUTABAGAS.—Quoted at 25@30c per bu.

CABBAGE.—Quoted at \$2@2.50 per hundred, from store, and \$1.50@1.50 from wagon.

DRIED FRUITS.—Evaporated apples, 8 1/2@9c; evaporated peaches, 10@12c; dried apples, 5 1/2@6c per lb.

APPLES.—Quoted as follows: Fair, \$2.50 @2.75 per bbl; good, \$3.00@3.25; choice, \$3.75 @4.00.

HONEY.—Quoted at 10@13c per lb for ordinary to best.

BEANS.—Market firm at 90@95c per bu in car lots.

POTATOES.—Quoted at 65@70c per bu in car lots, and 70@75c from store. At Chicago common to choice are quoted at 58@67c per bu. On the market in small lots, they are selling at \$1@1.10 per bag.

ONIONS.—Market dull and lower; sales are being made at 80@85c per bu for Michigan.

DRESSED HOGS.—Only a few coming in. Selling in a peddling way at \$4@4.20 for heavy, and \$4.50@4.75 for light.

HIDES.—Latest quotations are as follows: No 1 green, 8 1/2c; No 2 green, 7 1/2c; No 1 cured, 9 1/2c; No 2 cured, 8 1/2c; No 1 green calf, 13 1/2c; No 2 green calf, 12c; No 1 kip, 11c; No 3 kip, 9c; sheepskins, as to wool, 90c@1.25; shearings, 12@20c.

PROVISIONS.—Mess pork has advanced 25c per bbl, and mess beef has declined the same amount. No other changes. Quotations are as follows: Mess pork, \$10.75 per bbl; short cut mess, \$11; short clear, \$10.75; compound lard, 4 1/2c; family lard, 5 1/2c; kettle lard, 6 1/2c; smoked hams, 8 1/2@9c; bacon, 8 1/2@9c; shoulders, 5 1/2c; picnic hams, 6c; extra mess beef, \$8.50; plate beef, \$9.25.

OILS.—No change in oils; turpentine has declined. Latest quotations are as follows: Raw linseed, 42c; boiled linseed, 44c per gal, less 1c for cash in ten days; extra lard oil, 48c; No 1 lard oil, 33c; water white kerosene, 8 1/2c; fancy grade, 11 1/2c; deodorized stove gasoline, 7 1/2c; turpentine, 41c per gal in bbl lots.

HARDWARE.—No changes in values have occurred since a week ago. Quotations are as follows: Wire nails, \$1.75; steel cut nails, \$1.65 per cwt new card; axes, single bit, bronze, 5c; double bit, bronze, \$8.50; single bit, solid steel, \$6; double bit, solid steel, \$9.50 per doz; bar iron, \$1.40; carriage bolts, 75 per cent off list; tire bolts, 70 and 10 per cent off list; painted barbed wire, \$1.75; galvanized do, \$2.05 per cwt; single and double strength glass, 85 and 5 per cent off new list; sheet iron, No. 24, \$2.50 per cwt galvanized, 75 and 10 per cent off list; No 9, annealed wire, \$1.55 rates.

DETROIT LIVE STOCK MARKET.

Michigan Central Stock Yards.

Thursday, March 17, 1898.

Receipts Thursday, 168, as compared with 404 one week ago. Bad roads in the country was the cause of the light receipts of stock to-day. Market active, all sold fairly at prices 10c to 15c higher than last Friday's closing. \$4.40 was top price to-day for 6 good butcher steers av 1,200 lbs., and \$4.00 for 19 good feeders av 817 lbs.; but the bulk changed hands at prices ranging from \$3.00 to \$4.00; old to good fat cows, \$2.25 to \$3.65; bulls, \$3.00 to \$3.50; feeders and stockers, \$3.25 to \$4.05. Veal Calves—Receipts, 65; one week ago, 98; active at \$5.00 to \$6.00 per 100 lbs. Milch cows and springers unchanged; very few here.

Roe & Holmes sold Robinson 4 fair butcher cows av 1,205 at \$3.25, 8 do steers av 941 at \$4.00, and 6 good butcher steers to Mich Beef Co av 1,200 at \$4.40.

Geo. Spencer sold Sullivan 2 cows av 1,200 at \$3.25, 8 steers av 1,018 at \$4.05, 4 feeders av 850 at \$3.75, and 2 mixed av 85 at \$3.25.

Hogan sold Caplis & Co 9 mixed butchers av 880 at \$3.50.

Cushman sold Sullivan 19 feeders av 817 at \$4.00.

Sweet sold Caplis & Co 3 fat cows av 963 at \$3.50.

Walls sold same 8 steers av 1,000 at \$4.00, and a cow weighing 1,030 at \$3.25.

Clark sold Caplis & Co 15 steers av 854 at \$4.00, and 3 cows av 1,146 at \$3.25.

Murphy sold Fitzpatrick 2 cows av 1,100 at \$3.25, and a cow weighing 1,070 at \$2.25.

Spicer & M sold Mich Beef Co a fat heifer weighing 1,050 at \$4.10, and a cow weighing 1,040 at \$3.25.

Clark & B sold Mich Beef Co 3 mixed butchers av 820 at \$3.00, 4 do av 797 at \$3.65, 13 do av 776 at \$3.65, and a cow weighing 1,020 at \$3.65.

Harger sold Mich Beef Co a heifer weighing 640 at \$3.25, and a cow weighing 1,240 at \$2.75.

Oversmith sold Caplis & Co 2 mixed butchers av 960 at \$3.00, a cow weighing 930 at \$2.25, and 16 steers and heifers av 816 at \$3.80.

Firth sold Mich Beef Co 3 fat cows av 1,210 at \$3.45.

SHEEP AND LAMBS.

Receipts Thursday, 1,066; one week ago, 718. Quality only fair. Market fairly active; good handy butchers sold at strong last week's prices; shipping lambs slow and weak. Range of prices: Good to choice lambs, \$5.25 to \$5.50; light to good, and good mixed lots, \$4.75 to \$5.15; fair to good mixed butchers, \$3.75 to \$4.40; culls and common, \$3.00 to \$3.65.

Hogan sold Robinson 53 lambs av 75 at \$5.50 and 19 mixed av 78 at \$3.60.

Murphy sold Sullivan Beef Co 39 lambs av 84 at \$5.40.

Glenn sold same 28 mixed av 76 at \$3.75, and 43 lambs to Michigan Beef Co av 78 at \$5.40.

Boyle sold Young 14 lambs av 98 at \$5.40. Sweet sold Fitzpatrick 85 lambs av 83 at \$5.45.

Spicer & M sold Young 30 lambs and yearlings av 89 at \$5.15.

Clark sold Fitzpatrick 50 lambs av 64 at \$5.15 and 13 mixed av 83 at \$3.50, also 40 lambs to Russell av 93 at \$5.50.

Messmore sold Moneghan 56 lambs av 78 at \$5 and 4 av 90 at \$3.50.

Harger sold Heiser 12 lambs av 73 at \$5.50.

Taggart sold Sutton 15 lambs av 76 at \$5.35, 80 do av 71 at \$5.35, 24 mixed av 95 at \$4.10 and 12 do av 90 at \$4.10.

Sutton sold Sullivan Beef Co 36 culls av 93 at \$3.25.

HOGS.

Receipts Thursday, 1,052, as compared with 3,749 one week ago. Quality not very good. Market fairly active; good mediums and Yorkers strong to 2 1/2c higher, others unchanged from prices paid last Friday. Range of prices: good mediums and Yorkers, \$3.90 to \$4.00; light Yorkers, \$3.75 to \$3.92 1/2; pigs, \$3.50 to \$3.60; stags, 1 1/2 off; roughs, \$3.00 to \$3.30.

Glenn sold Sullivan 43 av 157 at \$3.90, and 20 pigs av 88 at \$3.50.

Walls sold same 38 av 169 at \$3.90.

Hogan sold same 38 av 156 at \$3.90.

Harger sold same 50 av 149 at \$3.92 1/2, and 26 pigs av 93 at \$3.50.

Roe & Holmes sold same 22 pigs av 108, 10 av 16 and 19 av 109 at \$3.60.

Oversmith sold same 29 av 152 at \$3.75. Stevens sold same 83 av 161 at \$3.95.

Clark & B sold same 84 av 125 at \$3.80.

G. D. Spencer sold Hammond, S & Co 40 av 186 at \$3.92 1/2.

Roe & Holmes sold same 12 av 221, 33 av 178, 82 av 181 and 53 av 168 at \$4.00.

Nichols sold same 74 av 172 at \$3.85.

Taggart sold Parker, Webb & Co 46 av 167 at \$3.95.

Messmore sold same 38 av 172 at \$3.95.

Friday, March 18, 1898.

CATTLE.

Receipts Friday, 170, as compared with 232 one week ago. Market active and strong; all sold early, closing firm. Top price to-day was \$4.25 for good butcher steers av 1,072 lbs., and \$4.20 for steers and heifers av 890 to 900 lbs., balance as noted. Veal calves—receipts, 36; active and strong. Milch cows rather slow; not many here.

Armstrong sold Mich Beef Co 23 steers and heifers av 990 lbs at \$4.20.

HOGS.

Receipts Friday, 2,380, as compared with 2,106 one week ago. Market fairly active and unchanged from above quotations. All sold, closing firm.

Sutton sold Parker, Webb & Co 131 av 155 at \$3.95.

Lomason sold same 26 av 183 at \$3.95.

Lovewell sold same 46 av 176 at \$3.95.

Brown & Y sold same 76 av 184 at \$3.95.

F W Horner sold same 63 av 190 at \$3.95, and 15 av 164 at \$3.95.

Lucke sold same 62 av 179 at \$3.95.

Roberts & S sold same 77 av 211 at \$4.00.

Spicer & M sold same 91 av 161 at \$3.97½.

Roe & Holmes sold same 59 av 157 at \$3.95, and 7 pigs av 107 at \$3.60.

Reason sold same 149 av 157 at \$3.92½.

Roe & Holmes sold same 108 av 179, 35 av 209 at \$3.95, and 72 pigs av 102 at \$3.70.

Leidel sold R S Webb 67 av 183 at \$4.00.

Sprague sold same 48 av 168 at \$4.00.

Joyce & Son sold same 42 av 150 at \$3.95.

Roe & Holmes sold Sullivan 67 pigs av 93 at \$3.60.

Lucke sold same 28 pigs av 101 at \$3.60.

Reason sold same 21 pigs av 92 at \$3.55.

Leach sold same 81 av 157 at \$3.90.

Sprague sold same 20 pigs av 95 at \$3.50.

Fox & Bishop sold same 77 av 158 and 82 av 153 at \$3.55.

Moore sold same 21 av 114 at \$3.60.

Eddy sold same 20 pigs av 118 at \$3.60.

Moore sold Hammond, S & Co 91 av 196 at \$4.00.

Eddy sold same 72 av 184 at \$4.00.

Allen sold same 51 av 142 at \$3.90.

Howe sold same 47 av 196 at \$4.00.

OUR BUFFALO LETTER.

East Buffalo, March 17, 1898.

Cattle.—Receipts of cattle on Monday last were 5,038, as compared with 5,434 the same day the previous week, and shipments were 4,334, as compared with 3,710 for the same day the previous week. The market opened Monday with a lighter supply than the same day last week, but the local demand was limited, and buyers for shipment and export were not at all anxious to secure cattle except on their own basis of value. As really choice steers were in light supply, that grade and good handy weight butchers were firm. The top price for fancy finished steers was \$5.25; choice ranged from \$5 to \$5.20, and fair to good at \$4.70-\$4.90. Common and half-fed stock were slow of sale at a slight decline; stockers and feeders, steady to firm; oxen in light supply and steady. About all the stock offered was taken. Since Monday the market has ruled quiet and steady, with sales on the basis of that day's closing prices. Quotations on Wednesday were as follows: Export and shipping steers—Prime to extra choice finished steers, 1,400 to 1,450 lbs., \$5.10-\$5.25; prime to choice steers, 1,300 to 1,400 lbs., \$4.95-\$5.10; good to choice steers, 1,200 to 1,400 lbs., \$4.80-\$4.95; good to choice fat steers, 1,100 to 1,300 lbs., \$4.70-\$4.85; Green coarse and rough fat steers, 1,050 to 1,400 lbs., \$3.75-\$4.25. Butchers, native cattle—Fat smooth dry fed light steers, 900 to 1,000 lbs., \$4.10-\$4.25; green steers thin to half fattened, 1,000 to 1,300 lbs., \$3.50-\$4; fair to good steers, 900 to 1,000 lbs., \$3.75-\$4.20; choice smooth fat heifers, 4.20-\$4.50; fair to good fat heifers, \$3.75-\$4.15; light thin to half-fat heifers, \$3.40-\$3.65; fair to good mixed butcher stock, \$3.75-\$4.10; mixed lots fair to good quality fat cows and heifers, \$3.50-\$3.75; good smooth half fattened cows, \$3.60-\$4; fair to good butcher cows, \$3.30-\$3.50; common old shelly cows, \$2-\$2.75. Native stockers, feeders, bulls and oxen.—Feeding steers, good style weight and extra quality, \$4.20-\$4.35; feeding steers common to only fair quality, \$3.85-\$4.10; good quality yearling stock, steers, \$4.10-\$4.30; stock heifers common to choice, \$3.60-\$4; stock steers cul grades and throw outs, \$3.50-\$3.75; export weight bulls, fat and smooth, \$4.10-\$4.30; good fat smooth butchers' bulls, \$3.75-\$4; fair to good sausage bulls, \$3.40-\$3.75; thin old and common bulls, \$3.25-\$3.50; stock bulls, \$2.75-\$3.25; fat smooth young oxen to good lots fit for export, \$4.35-\$4.60; fair to fairly good partly fattened oxen, \$3.50-\$4.25; old common and poor oxen, \$2.25-\$3.40.

Thursday the market ruled steady and unchanged.

Sheep and Lambs.—Receipts Monday, were 9,300, as compared with 17,400 the previous Monday; shipments were 6,600 as compared with 11,600 for the same day the previous week. With very light receipts the market opened active and higher Monday for choice grades of both sheep and lambs. Heavy sheep ruled dull, as the demand for them was very limited. The top price for lambs was \$6, at which price some 1,500 Michigan were sold. Heavy lambs sold at \$5.25-\$5.40; fall clipped lambs, \$4.50-\$4.90; top yearlings, \$4.90-\$5.10; choice handy weight sheep, \$4.75-\$4.90; best heavy sheep, \$4.60-\$4.75. Market closed firm with about everything sold. Since Monday the market has held firm for handy weight well finished lambs and steady for other grades; in sheep the offerings of good handy weights have been light, and they have held steady, while heavy weights are slow and weak. Quotations on Wednesday were as follows: Native lambs—Choice to fancy native lambs, 75 to 85 lbs., \$5.90-\$6.00; fair to good native lambs, \$5.60-\$5.85; heavy lambs averaging from 110 down to 95 lbs., \$5.25-\$5.40; good cull and common lambs, \$5.25-\$5.50; common to fair cull lambs, \$4.75-\$5.00; fair to choice feeding lambs, \$5.25-\$5.75; fresh clipped lambs as to weight and quality, \$4.25-\$4.50; fall clipped lambs as to weight and quality, \$4.50-\$4.90. Yearlings—Good to choice native handy yearling wethers, \$4.90-\$5.10; common to fairly good ewe and mixed yearlings, \$4.75-\$4.90. Native sheep—Prime to fancy wethers, \$4.75-\$4.90; good to fancy handy sheep, \$4.60-\$4.75; common to fair, \$4.25-\$4.50; culls and common, \$3.25-\$4.00; heavy export western fed sheep and wethers, \$4.40-\$4.45; heavy native wethers, 110 to 150 lbs., \$4.90-\$4.75.

Thursday the market was dull and weak for lambs, firm for handy weight sheep, but dull for heavy weights. Sales were made at the following range: Top lambs, \$5.65 to \$5.75; others, \$4.85 to \$5.60; handy mixed sheep, \$4.60 to \$4.75; culls to good, \$3.25 to \$4.50; heavy exports, \$4.35 to \$4.45; heavy lambs, \$5.25 to \$5.35; clipped lambs, \$4.45 to \$4.65.

Hogs.—Receipts of hogs on Monday last were 22,610, as compared with 30,590 for the same day the previous week; and shipments were 15,770, as compared with 22,800 for the same day the previous week.

With a considerable falling off in receipts the market shows a little improvement in tone, and sales Monday showed some advance in values as compared with the close of the week. Pigs were offered in excess of the demand, and were very slow of sale. Heavy hogs sold at \$4.15, mixed packers at \$4.10-\$4.12½, choice yorkers at \$4.10, and pigs at a range of \$3.60-\$3.80, according to quality. The market closed weak, with a good many pigs left in the pens. Tuesday values advanced about 5c on active buying, but the next day the advance was lost, and sales were made at the same range of prices as ruled Wednesday of last week. Quotations were as follows: Good to choice light medium grades, 165 to 190 lbs., \$4.05-\$4.10; choice and select yorkers, 140 to 160 lbs., \$4.05-\$4.10; light yorkers and pigs mixed, \$4.00-\$4.05; Mixed packing grades, 180 to 200 lbs., \$4.10-\$4.12½; fair to best medium weight, 210 to 260 lbs., \$4.10-\$4.15; good to prime heavy hogs of 270 to 300 lbs., \$4.15; roughs common to good, \$3.50-\$3.65; stags common to good, \$3.75-\$3.90; pigs 110 to 120 lbs good to prime corn fed lots, \$3.65-\$3.70; pigs thin to fair light weights, 75 to 100 lbs., \$3.50; pigs skips and common light and undesirable lots, \$3.00-\$3.50.

Thursday the market was active and higher: Yorkers, \$4.15 to \$4.20; mixed and medium, \$4.20; heavy, \$4.20 to \$4.22½; pigs, \$3.75 to \$3.90.

CHICAGO.

Union Stock Yards, March 17, 1898.

Cattle.—Receipts for last week were 46,040 head, as compared with 46,097 the previous week and 46,072 for the corresponding week in 1897. The market opened up rather slow on Monday, but soon became active, with values well maintained on good shipping and export steers. There was some weakness in common and half-fat cattle and ordinary westerns. Stockers and feeders ruled steady, with not many on sale. The range on common to fancy steers was \$4.20-\$5.40; stockers and feeders were quoted at \$4.40, and Texas steers at \$3.90-\$4.30. The Lenten season is affecting the market to quite an extent. Up to and including Wednesday of this week receipts have been 35,743, as compared with 34,403 for the same days last week. The market Wednesday had a dull tone, but strictly prime fat cattle did not show any weakness, but the great bulk of the steers offered were more or less lacking in flesh and quality, and they were slow of sale and generally a shade lower. Stockers and feeders were in good demand and sold high where the quality was good. The best steers sold at \$5.15-\$5.25, but they were not of the best quality; others ranged from \$4.45 to \$5.10; stockers, \$3.20 to \$4.60 for common to best; heifers, \$3.50 to \$4.50; cows, \$2.50-\$3.65. The market closed quiet and easy.

On Thursday receipts were estimated at 9,000. Market steady and unchanged.

Sheep and Lambs.—Receipts last week were 74,635, as compared with 82,503 for the previous week, and 57,416 for the corresponding week in 1897. The market opened Monday with receipts of 25,000, showing an increase over the same day last week. The increase was mostly in lambs. Notwithstanding the increase the market opened active and higher on sheep, while lambs were slightly lower than at the close of the week. Old ewes sold at a range of \$3.75-\$4.25; fair to good sheep, including heavy exports, \$4.25-\$4.35; prime wethers, \$4.50-\$4.60; thin to fair lambs, \$5.25-\$5.30; good to choice, \$5.25-\$5.30; fancy, \$5.35. Up to and including Wednesday of this week receipts have been 56,905, as compared with 56,065 for the same days last week. On Wednesday the market ruled active, and prices steady to strong; choice lambs especially sold well. Clipped ewes sold at \$3.75, and those carrying the fleece at \$4.30; good to choice mutton sheep in fleece, \$4.50-\$4.70; a lot of clipped yearlings made \$4.40 (equal to \$5.10 in fleece), and a lot in fleece at \$4.90; clipped lambs sold at \$4.20 and in wool at \$5.10-\$5.45; one lot of fancy, \$5.60.

Thursday's receipts were estimated at 15,000. Market unchanged.

Hogs.—Receipts last week were 130,470, as compared with 160,311 the previous week and 124,337 for the corresponding date in 1897. Receipts on Monday were estimated at 28,000, as compared with 31,840 for the same day last week. Buyers, however, did not seem to want hogs, and under a light demand values declined 5¢ to 7½¢ as compared with the close of the week. Rough packers sold around \$3.75-\$3.80; prime packers and good mixed, \$3.85-\$3.90; prime mediums, butcher weights, and shippers, \$3.95-\$4; a closely assorted shipping sort, to average 175 lbs, cost \$3.85; light little pigs averaging 78-80 lbs, sold at \$3.90-\$3.95. The market closed weak, with a good number of hogs carried over unsold. Up to and including Wednesday of this week receipts have been 65,636, as compared with 62,267 for the same days last week. On Wednesday the market opened strong and active, but later weakened, and declined fully 5c from early prices, closing dull. Late sales were at the following range: Rough and common, \$3.75-\$3.80; prime packers and good mixed, \$3.90-\$3.95; prime mediums, butcher weights and shippers, \$3.95-\$4.05; one lot of big heavy, \$4.10; light, \$3.80-\$3.85; pigs, \$3.25-\$3.30.

Thursday's receipts estimated at 22,000. Market active and strong; light, \$3.75 to \$3.90; mixed, \$3.75 to \$4.00; heavy, \$3.75 to \$4.05; roughs, \$3.75 to \$3.85.

The Hessian fly is reported to have done a great deal of damage to the wheat crop in Lancaster County, Pennsylvania. The grass crop is also in bad condition there.

During the winter season lice are the worst enemies of the poultry keeper. In the summer the hens protect themselves by taking a dust bath, and the sensible poultryman, in addition to other precautions, will see his fowls have facilities for taking one whenever they wish. Dry earth, mixed with some wood ashes, is the best mixture for the dust boxes.

Some enthusiast is declaring that sugar beet pulp from the factories is a preventive of hog cholera. He should

also include small-pox, Texas fever, and glanders as among the diseases which beet pulp will prevent. We note that in England the past year swine plague, or cholera, has been unusually prevalent, and more roots are fed to hogs there than in any other country. They were not prepared in a factory, however, and this may account for the unsatisfactory results.

Veterinary Department.

CONDUCTED BY DR. W. C. FAIR.

Advice through this department is free to our subscribers. Each communication should state history and synopsis of the case fully; also name and address of the writer. The initials will only be given. When an answer is requested by mail it becomes private practice, and a fee of one dollar must accompany the letter.

Lice on Cattle.—Cattle are lousy; hair comes off. Stock in fair condition. J. F. C., Fremont, Mich.—Apply kerosene two or three times a week or one part carbolic acid to thirty parts water once a week.

Tender Shoulders.—What can I apply to a horse's shoulders to toughen them? G. M. C., Owendale, Mich.—Apply one ounce sulphate zinc, one ounce acetate lead, tannic acid two drams and one quart water.

Thrush.—A horse has thrush in one fore foot. Frog of foot has all perished, and he is quite lame at times. T. H. N., Wixom, Mich.—Remove all unhealthy frog. Keep feet dry and clean, and apply calomel twice a day.

C. S. M., Mich.—Clean your hen roost and disinfect it with Zenoleum. Use one part of Zenoleum to fifty parts water on fowls' heads. Cleanliness is the most important part. It will not pay you to treat chronic cases. Destroy them and burn them.

Grease Heel.—My horse has grease heel for the first time. Sheath is swollen. I have tried several kinds of medicine; none help him. H. C. H., Davisburg, Mich.—Clip hair off leg. Apply poultices of boiled turnips; also apply one ounce acetate lead, one ounce sulphate zinc, water one quart, three times a day.

Breeding Ewes Too Fat.—Ewes are lambing and have lost two. They either die while giving birth to their young or soon after. Another ewe which had twin lambs has a large udder, but is hard to milk. Ewes are all fat. E. L. J., Ionia, Mich.—Your ewes are too fat and have not had enough exercise before lambing. Purge them with epsom salts, feed them less grain and give exercise daily.

Cow Gives Bloody Milk.—A heifer gives bloody, gargled milk; has plenty of bedding. Do not know that she has injured her udder. Have bathed in warm water and rubbed with vaseline for two weeks, with no effect. E. B. Howell, Mich.—Give one dram fluid extract of ergot twice a day and apply acetate lead one ounce, water one quart to udder twice a day. Hot fomentations will do harm.

Ringworm—Sitfast.—I have a two-year-old filly that has sore patches on body, also several bunches size of hickory nut. She is not sick. J. H. Duplain, Mich.—Remove small bunches with a knife and apply tincture iodine to sore parts of skin twice a week for two weeks, then use oxide zinc half an ounce, lard four ounces until well. Ringworm is frequently communicated from one horse to the other.

Sweeney.—I have a mare that is sweeneyed; have blistered her shoulders several times without effect. H. C. Elsie, Mich.—When blisters fail, you had better insert a seaton or two, extending them as far as atrophy goes, and apply turpentine to seaton once a day, after washing the parts with soap and water. Feed plenty oats. If horse is not lame, use him for light work and he will recover more rapidly.

Impaction.—Cow has been sick about a week. She is fat and due to calve last of April. Chews hay and feed, but throws it up in large cuds during the night. Has no appetite. Have given her soda for indigestion. Don't seem to have any fever. Teeth seem all right. L. E. R., Parma, Mich.—Your cow suffers from impaction. Give one pound of epsom salts three times a day until she purges freely.

Inferior Quality of Milk.—Have a cow not due to calve until last of June, but can make no butter from her. When cream is mixed with that of another cow, I can not churn it. Cow is in good condition. Feed corn stalks, cut hay and bran, with an occasional feed of roots, such as carrots, beets and bagas. Churned her cream last year until within six weeks of calving. S. G. S., Traverse City, Mich.—Your cow's milk must be of low quality, or you may keep cream too cool before you churn. Let it sour some, and I think you will have less trouble. It might be as well to let cow go dry.

Eczema—Lice—Congestion of Lungs.—1. Shoats are not doing well; in the first place the sow didn't give enough milk for them and they were stunted. Have fed corn mostly until the last few weeks. They would always act hungry, but would eat little. For a short time I have been feeding corn with a little oats ground with it, and a little bran and middlings. I salt it some, and feed it in a thick slop. They don't grow as they ought. They are lousy and one of them has a skin disease of some kind; the hide gets dry and scabby and cracks open. 2. What is the best remedy for lice on hogs, and cattle, and is it necessary to apply it all over the body? 3. I had two fine yearling ewes die. All the symptoms that I could notice were that they refused to eat and would stand or lie around till they got quite weak, and then died. I opened one of them. Her lungs looked just like liver. The other's lungs had liver-colored spots, and streaks. S. R., Hagerman, Mich.—1. Apply one part oxide of zinc to five parts vaseline once a day to sore parts of skin. 2. Kerosene and lard will destroy lice; apply to the neck, back and surr- f body. 3. Your ewes die from congestion of lungs.

When writing to advertisers please mention Michigan Farmer.

THEY RIDICULE IT.

Many People Ridicule the Idea of an Absolute Cure for Dyspepsia and Stomach Troubles.

Ridicule, However, Is Not Argument and Facts are Stubborn Things.

Stomach troubles are so common and in many cases so obstinate to cure that people are apt to look with suspicion on any remedy claiming to be a radical, permanent cure for dyspepsia and indigestion. Many such pride themselves on never being humbugged especially on medicines.

This fear of being humbugged may be carried too far; so far, in fact, that many persons suffer for years with weak digestion, rather than risk a little time and money in faithfully testing the claims of a preparation so reliable and universally used as Stuart's Dyspepsia Tablets.

Now Stuart's Dyspepsia Tablets are vastly different in one important respect from ordinary proprietary medicines for the reason that they are not a secret patent medicine, no secret is made of their ingredients, but analysis shows them to contain the natural digestive ferments, pure aseptic pepsin, the digestive acids, Golden Seal, bismuth, hydrastis and nux. They are not cathartic, neither do they act powerfully on any organ, but they cure indigestion on the common sense plan of digesting the food eaten promptly, thoroughly before it has time to ferment, sour and cause the mischief. This is the only secret of their success.

Cathartic pills never have and never can cure indigestion and stomach troubles because they act entirely upon the bowels, whereas the whole trouble is really in the stomach.

Stuart's Dyspepsia Tablets, taken after meals, digest the food. That is all there is to it. Food not digested or half digested is poison, and it creates gas, acidity, headaches, palpitation of the heart, loss of flesh and appetite and many other troubles which are often called by some other name.

They are sold by druggists everywhere at 50 cents per package. Address Stuart Co., Marshall, Mich., for book on stomach diseases or ask your druggist for it.

SPAVINS. Absolutely removed and permanently cured in 24 hrs. without pain. Splints, Ringbones, Curbs, Bunches. DR. O. W. MCKEE, Benson, Minn.

WOOL TAGS.

Farmers having Tags to sell can obtain highest market prices by addressing CARL E. SCHMIDT, 54 Macomb St., - - DETROIT, MICH.

\$5 FOR MACHINE. \$5 Builds fence any night with any number of line wires. Cable or plain wire can be used for line or stay wires. Send \$3 with this ad. or mention this paper, and machine will be sent to any part of U. S. express paid, for 30 days from date of this notice. Agents wanted. The Redmond Fence Machine Co., Perry, Mich.

SEND for an A. B. C. of Fence Making, describing the F. F. Tools, which weave best fence on earth at lowest cost; also repair old fences. J. F. VERRILLING, Box 191, Alton, Ill.

Farmers Break the Buggy Monopoly.

It is claimed that for years buggy manufacturers have secured exorbitant prices for their goods, but recently through the combined assistance of the farmers of Iowa, Illinois and other states, SEARS, ROEBUCK & Co., of Chicago, have got the price of Open Buggies down to \$16.50; Top Buggies, \$22.75; Top Surries, \$43.75, and upwards, and they are shipping them in immense numbers direct to farmers in every state. They send an immense Buggy Catalogue free, postpaid to any one who asks for it. This certainly is a big victory for the farmer, but a severe blow to the carriage manufacturers and dealers.

ASTHMA CURED TO STAY CURED. Correspondence invited. No charge for advice. Write to C. H. B. P. Harold Hayes, M.D., Buffalo, N. Y.

FARM FOR SALE. Good buildings; well kept; excellent water; 80 acres; three miles from market. A. & O. BAXTER, Muskegon, Mich.

280-Acre Farm to be Sold at Auction (TO CLOSE AN ESTATE). APRIL 1st, 1898. Good buildings, well fenced, well watered. 4½ miles from Union City, 2 miles from Burlington, Calhoun County, Mich. 40 acres good timber. Terms cash, or ¼ cash, balance on time. Call on or address S. V. R. LEPPER, Administrator, Marshall, Calhoun Co., Mich.

A GOOD CHANCE TO BUY A FARM OF 160 ACRES Good soil and buildings; living water; right for stock. Near station on R. R., school and church. Terms easy. Address J. B., care of C. O. THOMPSON, Ionia, Mich.

GENERAL AGENTS. wanted to superintend local agents selling the Combination Lock-pin Clevis to farmers and others. Self locking; always secure; sells at sight; exclusive territory, 150 percent profit. CORMAN MFG. CO., 225 Dearborn Street, Chicago.

Horticultural.

For The Michigan Farmer.
SMALL FRUIT GROWING FOR
BEGINNERS.—IV.

The cultivating of small fruits should begin just as soon as the last plant is set; yes, the cultivator should be run through the rows before night if there is time; but if not they should be gone over the first thing in the morning. If they are not cultivated immediately the work is likely to be neglected, but if the cultivator is run through them now we may be sure they are all right, and a good foundation laid for a successful harvest.

Now, taking for granted that the soil was properly fitted and good plants procured and well set, your success depends almost entirely upon your care of them during the summer. We say almost entirely, because we must take into consideration the fact that there may be a late frost, from which there is no sure way of escape. Cultivate and hoe them properly and your success is assured; neglect them and your failure is just as certain. The cultivator should be run through them once a week, at least, and after every rain the soil should be stirred to prevent the formation of a crust and consequent cracking of the ground. This earth mulch acts on the same principle as a covering of straw or other coarse material; it prevents the evaporation of the moisture after capillary attraction has drawn it to the surface. The ground under a manure pile, or an old straw stack, is always moist enough to support vegetation even during the severest drouth; you will also notice this to be the condition of the soil under a board that has laid upon the ground for some time. Well, as I said, an earth mulch acts on the same principle, and is the best and cheapest mulch for small fruits. Capillary attraction is always at work drawing the moisture in the earth towards its surface, and if there is no mulch to prevent, it passes off in the air and is lost; but if held there by an earth mulch, it will be taken up by the roots of the plants as they need it. One inch, or at the most two inches, is about the right depth to cultivate small fruits, especially after the ground is well filled with roots; one inch is all that is necessary unless the soil has become hard, in which case I think I would cultivate deeper until the soil was in what I thought to be proper condition. In the spring of '77, just as I had my plants set, there came a regular old "soaker," and when the ground dried out it was in poor condition to grow an ideal strawberry bed, so I cultivated deep, using narrow teeth, and pulverized the lumps with our lump crushers until the soil was fine to the depth of several inches. By cultivating both ways, and using the pulverizers to crush the lumps, the work of finning the soil was reduced to the minimum, and in this soil the young plants thrived wonderfully. Last season we cultivated both ways until near the last of July, keeping all runners cut, but we would not advise others, especially beginners, to keep runners cut as late as that; until the first to the tenth of July is late enough. To have a perfect dust mulch it must be very fine, and unless you have soil extra nice, a crusher such as we use will be a great help. It is made as follows:

Cut three or four pieces of plank, or boards, the length of the width of the crusher you wish to make; fasten one upon the other, lapping them about two inches by means of a board fastened on the top of the planks on either side with nails. A large spike driven through the front plank, at each corner, far enough to reach the soil, will push all leaves or runners aside, thus preventing them from being torn from the plant. We use no singletree with our crushers, but hitch the tugs to wires fastened at each side of the crusher. This makes the draught even and prevents that "jumping" of the crusher that would otherwise follow. The driver rides, standing, and by shifting his position can run the cultivator either to the right or left; but he will necessarily need some experience before becoming an expert at guiding the crusher in this way.

When the time has come to let the runners set, place the plants in position, as they appear on the runners, pushing them into the soil a little way and fastening them there with some dirt until they can take root, when they will look out for themselves.

These new plants should not be set closer than six to ten inches, depending upon the quality of the soil; if

very rich ten inches is close enough, but if only common six inches is far enough apart. I would plan to have a 30-inch path and this would leave 18 inches for each row of vines. By this method you will get a larger quantity of fruit, and it will be of a finer quality than if the plants were allowed to set closer, or to form a "mat," for when you get enough plants to fill out your row all surplus runners should be removed as fast as they appear, and this will give the plants a chance to secure a good root pasturage; dig up such a plant and you will find that it has sent out myriads of roots and rootlets in every direction, while in its crown are numerous fruit buds. But when the plants are allowed to run freely and mat closely there is a heavy drain upon the plants, and but few of them secure a sufficient root pasturage to mature a large amount of fruit; and furthermore, if the plants are not held in place until their roots can secure a hold in the soil they will be blown about by the winds and not take root at all, or if so will root in clumps, and thus some spots in the bed will be overcrowded while in other places there will be a vacancy. Keep the cultivator going until snow flies or until the soil gets too wet to work, and the bed free from all weeds. A mulch to protect the plants from the winter's sun and consequent thawing and freezing may now be applied at any time, when you can get on with horses and wagon without cutting and punching up the soil. This mulch may consist of any coarse material that may be handy, and a greater or less quantity may be applied, as there is not much danger of smothering the plants. Marsh hay makes one of the best materials for mulching, and should be used when it can be procured, as it is free from weed seeds. However, any kind of straw will do for a mulch; this winter we used stable manure, as our ground is not rich enough to suit us. This will give better results than if all the manure had been applied before setting the plants. The fall and winter rains will have washed the fertility from the manure into the soil, and next spring the plants may draw from the supply when maturing the large crop of fruit that we are expecting to pick, providing our expectations do not get cut off by a frost.

Raspberries and blackberries should be cultivated the same as strawberries, and may be cultivated both ways until the bushes get too large. Treat all suckers as weeds, keeping the plants in hills. We should also set a row of posts in each row of plants and nail a piece of board about 12 or 18 inches long at the top of each post; now string a wire down each side of the row of plants, fastening it to the end of each board; train the plants up between these wires, and they will not be in the way of the cultivator; neither will the wind thresh them around, knocking the fruit off. Lastly, be satisfied with nothing less than the best, be it fitting the ground, setting the plants or cultivating and hoeing, treat each plant as though it was your best friend.

St. Clair Co. M. N. EDGERTON.

For The Michigan Farmer.
RED RASPBERRIES.

BY CHAS. C. NASH.

At the present time red raspberries properly managed are more profitable than black caps, for the reason that the latter have been considered easier to raise, consequently there is a supply of black caps thrown on the market which is much in excess of the demand and prices for them are low, while well grown red varieties are not equal to the demand and bring much better prices.

A poorly grown red raspberry is not always desirable, but if cared for as described further on no person need meet with failure, but an acre of red caps thus cared for will be found surprisingly profitable.

A careless, indolent man cannot raise first-class red raspberries no more than he can do business in a profitable way, for they need more watching during the growing season than the tip varieties.

SOIL AND LOCATION.

A well drained loam, where the soil is warm enough to grow a first-class crop of corn or potatoes, is a desirable place to set red raspberries.

A naturally well drained, sandy loam with a hard, clayish subsoil I have found the best soil on which to grow large berries. As a matter of fact the largest berries I ever grew were set on a heavy loam, with a subsoil so hard and stony that it was very difficult to subsoil it; but very fine crops can be raised on sandy soil

(Continued on page 237.)

When writing advertisers mention Mich. Farmer

LEONARD'S LIVE SEEDS

remove every element of doubt and make Garden Success a certainty. The reasons why will be found in our splendid new catalogue; it contains all that is good and reliable for the vegetable and flower garden and the farm. Your name on a Postal Card gets it.

S. F. Leonard, Seedsman,
P. O. Station D, Chicago, Ill.

The best seeds grown are Ferry's. The best seeds sown are Ferry's. The best seeds known are Ferry's. It pays to plant the best.

FERRY'S Famous Seeds

Ask the dealer for them. Send for FERRY'S SEED ANNUAL and get all that's good and new—the latest and the best.

D. M. FERRY & CO.,
Detroit, Mich.

CATALOGUE FREE. HOME GROWN SEEDS at Low Prices.

SEND FOR OUR large, fine CATALOGUE TO-DAY, mailed FREE. It tells all. Market Gardeners ask for Wholesale Price List.

ALNEER BROS.,
No. 9 Alneer Bldg., Rockford, Ill.

FREE Government Free Seeds are simply "not in it."

To introduce the Best Michigan Northern Grown New Land Seed Potatoes, Farm, Garden and Flower Seeds, everywhere, I will give away.

ABSOLUTELY FREE 500,000 Packets of choice Vegetable and Flower Seed.

Your name on a postal card gets my Free Seed Book from which you may select Free your supply of seeds for an entire garden. Write to day.

HARRY N. HAMMOND,
Seedsman, Box 6
Decatur, Mich.

SEEDS

Cheapest ever grown BEST in the world; no other as good; warranted to be by far the CHEAPEST.

Prettiest book in all the world SEEDS and up for large packets. Send yours and neighbors names for my Beautiful Illustrated Catalogue.

R. H. SHUMWAY, Rockford, Ill.

PEACH TREES a specialty. Other stock, too. Don't buy without first seeing our catalogue. Send for it. WM. PETERS SONS, Wesley, Md.

For the BERRY CROWER. We supply the best plants of the best varieties. It's our specialty, we do only that. Strawberries, Raspberries, Blackberries, Currants, Gooseberries, etc. Write for prices and circulars free.

R. J. STAHELIN, Box 6, Bridgman, Mich.

PEACH TREES 4 to 6 ft. at 2c.; 3 to 4 ft. at 15c.; all 1 yr. from bud, healthy and thrifty, no scale. Official certificate accompanies each shipment. Sample by express if wanted. Can ship any time. Trees kept dormant till May 10. B. S. Johnston, Box 6, Stockley, Del.

A BARGAIN IN SECOND SIZE PEACH 4 to 5 feet, extra fine quality. Write for terms. E. C. LIGENFRIE & CO., Monroe, Mich.

\$1 WORTH OF SEEDS FOR 25 CTS.

A Steel Frame Cultivator for.....\$ 2 25
A Disc Harrow for.....15 25
A 30-tooth Spike Steel Harrow.....8 50
Write at once stating what you want and save money.

B. F. FOSTER, Allegan, Mich.

BEANS, CLOVER, and all kinds of Seed and Grain perfectly Cleaned by THE CLIPPER, the only air cleaner made. Also BEAN PICKERS. Write us for catalogue.

A. T. FERRELL & CO.,
Saginaw, Mich.

PLANT BOXES \$2.25 PER For HOT-BED USE 1000.

4-inch cube, 4½-inch cube, or 5-inch cube.

BERRY CRATES and GRAPE BASKETS.

Write for price list. Address COLBY-HINKLEY CO., Benton Harbor, Mich.

All Seed WARRANTED

We warrant all our seed in accordance with the offer on the first page of our catalogue. All our seed is raised from carefully selected cabbage, onion, carrot, beet, &c., and yet at as low prices as seed raised from trash.

Try the Surprise Pea, warranted to be the very earliest of all the wrinkled sorts. Try the Enormous potato (804 bus. per measured acre) the best of all the early beets, the new cabbage, cucumber, lettuce, etc. To have the best garden you will need our catalogue, it contains the best varieties of vegetable seed, many of them of our own raising. The Flower Seed page is of particular interest to wife and daughter. It is free.

JAMES J. H. GREGORY & SON,
Established 45 years.
Marblehead, Mass.

FOR 14 CENTS

We wish to gain 150,000 new customers, and hence offer

1 Pkg. 13 Day Radish,	10c
1 Pkg. Early Spring Turnip,	10c
1 Pkg. Earliest Red Beet,	10c
1 Bismarck Cucumber,	10c
1 Queen Victoria Lettuce,	15c
1 Klondyke Melon,	15c
1 Jumbo Giant Onion,	15c
1 Brilliant Flower Seed,	15c

Worth \$1.00, for 14 cents.

Above 10 pkgs. worth \$1.00, we will mail you free, together with our great Plant and Seed Catalogue upon receipt of this notice and 14c. postage. We invite your trade and know when you once try Salzer's seeds you will never get along without them. Potatoes at \$1.50 a Bbl. Catalogue alone 5c. No. 137.

JOHN A. SALZER SEED CO., LA CROSSE, WIS.

SEEDS, GARDEN, FIELD, and FLOWER.

Write us for Field Seed price list, also Annual Seed Catalogue, free.

We have the entire U. S. Government Seed contract for 1898 and can furnish seeds fresh and pure. Be friendly and write to us.

THE HENRY PHILLIPS SEED & IMPLEMENT CO.,
115 & 117 St. Clair St., Toledo, Ohio.

F. & F. NURSERIES

New Fruit and rare Ornamentals. Shade trees, Shrubbery, Private, Specialties, 100,000 Peach at lowest prices. Catalogue free. Agents wanted.

CHOICE.....STRAWBERRIES

FRESH DUC PLANTS.

NICK ORMER, MARGARET, SEAFORD, RUBY, CARRIE, ETC. 400,000 Clyde, 130,000 Glen Mary, 400,000 Marshall. Write for estimate on large lots. 100 varieties. CATALOGUE SENT FREE.

C. N. FLANSBURGH, LESLIE, MICHIGAN.

ONION SEED, Yellow Globe that will grow 100 per cent.

SUGAR BEET for making sugar or feeding that will grow 100 per cent.

We Have the Highest Grade Seeds Known.

Wholesale market gardeners' list free.

HILL'S SEED STORE, Detroit, Mich.

PEACH TREES

at wholesale or retail. Officially declared free from scale or injurious insects. Best stock grown. Strawberry Plants—63 varieties; all from new beds. Apple, Pear, Plum, and other stock. Send for new Catalogue to-day.

HARRISON'S NURSERIES, Berlin, Md.

The Comet \$2 to \$4 Double-Acting SPRAYERS

are the best. Sprays from bucket or barrel 50 feet. New scientific and mechanical principle. My free catalogue will make plain to you that I have the sprayer you want. Write to-day.

H. B. RUSLER, - - Johnstown, Ohio.

SPRAYING

with our new Kerosene Sprayers

is simple. Kerosene Emulsion made while pumping. Send for photo of our New PEELERS ORCHARD SPRAYER, with HORDEAUX NOZZLE, the WORLD'S BEST.

THE DEMING CO. SALEM, O.

West's Ag'ts Henton & Hubbell, Chicago

DON'T WASTE Grain

or money sowing by hand or with cheap imitations of the CAHOON Broadcast SEED SOWER which is the most economical, accurate, durable and rapid hand seed sower made. Acknowledged standard of the world for past 30 years. "Get the Best." If your dealer will not supply you write to us. Circulars Free.

GOODSELL COMPANY, Antrim, N. H.

THE APIARY

—its pleasures and profits is the theme of the excellent and handsome illustrated magazine, *Gleanings in Bee Culture*. We send a free sample copy and a Book on Bee Culture and Book on Bee Supplies, to all who name this paper in writing.

THE A. I. ROOT CO., MEDINA, OHIO.

Michigan Grown Seed Potatoes

Guaranteed free from disease. Choice varieties, choice stock. Catalogue free to all.

W. W. PEIRSON, Leslie, Mich.

with thorough cultivation and a proper amount of surface manuring, and I would say that I find surface manuring the proper method where the subsoil is a leachy sand.

SELECTION OF VARIETIES.

To take all points of excellence into consideration I haven't yet seen a successful competitor of the Cuthbert or Queen of the Market; but with the progress that is now being made I have no doubt but that there will be one in the near future.

I have made more out of Cuthbert than all the other varieties of red raspberries I have ever grown put together; its color, size, shape and shipping qualities are what sells it, and when properly canned it is good enough for a king.

Some of the newer varieties may be superior to it in some particulars, but in all points that go to make up a first-class market berry they haven't done it yet.

Many report that they have trouble with it in regard to hardness of cane. I am never bothered in this respect unless I manure too heavily with barnyard manure, thus encouraging too tender a growth of cane late in the season. I am inclined to believe that a few plants of other varieties of red sorts planted close by will cause it to fruit even more heavily.

I have tried many of the new varieties and also observed the tests given them by my brother fruit-growers in hopes that the wonderful dreams of glowing catalogue descriptions might be realized, but have had to acknowledge Cuthbert superior.

FERTILIZING.

Considerable judgment is necessary in fertilizing red raspberries unless of extremely hardy varieties, like Turner.

The Cuthbert is often spoken of as being tender, but where this complaint is made it will generally be found that the soil on which they are grown is heavy clay soil, which has been too highly fertilized with barnyard manure.

With me the Cuthbert has always been hardy enough for all practical purposes, as I scatter a moderate quantity of manure around the bushes, but not enough to force a tender growth late in the fall.

I have found unleached ashes and barnyard manure to be as economical a fertilizer as any. I do not consider that it pays to use commercial fertilizers unless the grower lives near a large city where prices are high enough to balance the extra expense.

I prefer to scatter a fair coating of manure on the ground before plowing and another after plowing, harrowing in to mix thoroughly with the soil. Then every winter or early spring place from two to four forkfuls of manure on the surface around each hill.

MARKING OUT AND PLANTING.

After trying the continuous row and the hill method I have decided that the former method with rows six feet apart and the plants three feet apart in the row is preferable to six by six feet each way and cultivating both ways. Of course the cultivating can be done so as to save much hoeing by the latter method, but I am convinced that the berries need more shade to grow nice and plump than can be obtained by the six by six feet method, and which is supplied by the continuous row.

I mark out the rows with a marker made for the purpose of marking out furrows for red raspberries and blackberries which is similar to the single-legged potato marker, but lighter with a single shovel taken off the double-shovel, single-horse cultivator. I go twice to three times in each row with this marker that I may straighten any curve made in the row and to work up plenty of loose soil which will be in the best condition for good and rapid setting.

A careful hand should be employed to set red raspberries, as nothing looks worse in the patch than a lot of vacant hills after the bushes are two to three feet high. Then another thought must be kept in mind if a good stand of plants is desired, and that is to have them set out as early in the spring as possible. I have been disappointed at least once by not getting them out on time and having a few vacant hills, so have come to the conclusion that I will not set out any after April the 20th, if I can possibly help it, unless the summer planting of the green sprouts, which can be done successfully if the weather be favorable. I have had quite fair success by this method, but it must not be expected that much of a crop of berries can be raised by this plan the next season after planting. The one-horse garden plow is sometimes used, but the first marker, de-

scribed above, is superior to it in not leaving a glazed surface to plant against as would be left by the land-side of the plow; then the row cannot be made as straight as with the single-legged marker, saying nothing about the fine soil that the latter leaves on both sides of the furrow instead of all the soil being thrown on one side. If the roots to some of the plants are over twelve inches long cut back to that length, that each plant may grow independent in the three-foot space of soil allotted to it.

(To be Continued.)

THE CAULIFLOWER.

A correspondent signing herself "Reader," writes: "I would like to make this inquiry through the Farmer, in hopes that it may call forth a practical answer: What is the value of the cauliflower as a marketable vegetable, and how best to raise it?"

In answer to these queries it may be stated that the cauliflower is not a popular vegetable, especially in the West. In the neighborhood of the large eastern cities it is said to be a paying crop for the market gardener, but a costly one to raise, owing to its lack of hardiness, and the amount of labor required to care for the crop. Practically the cultivation of the cauliflower is the same as that followed with the cabbage. The sowing of the seed, the care of the plants, and the transplanting of them, are the same in each case; but the cauliflower is much more sensitive than the cabbage, and the plants must be more carefully protected. The plants are started in a hot-bed, and after reaching proper development are transplanted into the open ground. This is the most important work connected with the cultivation of this vegetable. They must not be transplanted until the plants have reached a proper stage of development, and the season has so far advanced that the soil is warm and all fears of late frosts have disappeared. Then the soil must be in a high state of cultivation, quite rich, and kept perfectly clean by cultivation after the plants are set out. The ground preferred by old growers is a sod, which can be plowed in fall if heavy, and then worked the next spring until the land is entirely free from grass, and the soil worked as fine as possible. In the East growers sow for three crops, an early, middle and late. There is not much attention paid to cauliflower in this section because other and more popular vegetables can be grown with less trouble and expense.

The Poultry Yard.

For The Michigan Farmer.
POULTRY COMMENTS.

How to keep the henhouse warm during frosty winter weather is an absorbing topic to many. Often it requires considerable study to devise a way that will be economical and practical, and at the same time do the business. Many resort to artificial heat by means of a stove, and doubtless there are many instances where such a mode is thoroughly practical. Our experience with the stove as a means of keeping up the temperature is limited, having resorted to this method only one winter, but our experience, while as successful as it seemed possible to make it at the time, did not quite come up to the ideal. Our great difficulty, and obviously the most important thing of all, was to keep a sufficiently even temperature. In spite of us sometimes the temperature would go away up, and then in a few hours it would go the other way, so that the results were anything but for the good of the fowls; in fact, in the house where the stove was used, more trouble was experienced with rumpy fowls than in either of the others. It is not practical to keep a stove in the henhouse unless one intends to keep the poultry housed all winter. If they are allowed to run in and out as they please, the sudden change in passing from a heated interior to a chilling outside air is anything but for the health of the fowls. It would be quite a question if it would not pay far better in the end to use the necessary expense in getting stove and appliances together with the feed in making the wall of the poultry house warmer, and so far as possible shutting out all outside connection with the cold air except what is necessary for ventilation, which during winter weather will be little, if otherwise things are properly arranged.

Very often it happens that while a

person is willing and even anxious to make his house as warm and comfortable for the fowls as possible, he doesn't quite see his way clear to invest in more or less expensive paper to cell the interior with. Such difficulties can be overcome by a liberal use of newspapers, either tacked or pasted to the walls. In many instances the latter method would be preferable, as it comes the nearest to entirely shutting out all chance for air passages. Still if care is taken, newspapers can be tacked in such a way as to make the walls very nearly air tight. Newspapers make a cheap material, as almost any farm house has an abundance; but in case it happens that they are none too plentiful, doubtless all that are needed can be secured at local printing offices for a few cents per dozen. If one is inclined to try newspapers, obviously, the thicker and more carefully laid they are the better the results will be that follow.

While this kind of papering can be made to answer a very good purpose, the writer would not recommend it in preference to tarred paper, such as one can get at almost any hardware store, unless it is entirely out of the question. Tarred paper makes one of the best linings for a poultry house that can be devised. It can be put on easily and quickly and after it is in place it answers an excellent purpose. The best way of putting it on is with nails and lath, but as this has been de-

scribed in The Farmer before, it does not need repetition.

Many condemn the practice of putting tarred paper on the interior of a henhouse at all, on the ground that the paper produces dampness. Perhaps those who disapprove of the practice have found ample grounds for their belief, but our experience with the material has never borne out the theory, and until it proves to be quite different than what it has been, we would have no fear of using it inside or anywhere else that one would care to use it.

C. P. REYNOLDS.

Mrs. C. H. R. Monroe Co.: Do not know of any one who has Bronze Turkey eggs for sale. If any of our readers have they should make it known through our advertising columns.

The appearance of dressed poultry in market largely affects its value. It is not sufficient to simply remove the feathers, but it should be done neatly, taking out the pin feathers, also. Experts singe the carcass, after carefully picking the feathers; but this must be done so as to avoid burning the skin or leaving evidence of such work. Western poultry is scalded, but the best prices are offered for the carcasses that are dry-picked. The skin of very young fowls may be easily torn, which must be avoided, or sales will be more difficult.

Don't Set a Plant until you have read R. M. Kellogg's New Booklet for 1898

GREAT CROPS OF SMALL FRUITS

AND HOW TO GROW THEM

It contains more practical information than any book ever published on the subject. We have ideal facilities for plant breeding, including irrigation, so that while the plants of other nurserymen were ruined by the great drought of last fall, our soil moisture was maintained by pumping water, and our plants are the finest we have ever grown. Booklet free. Send for it.

R. M. KELLOGG, Three Rivers, Mich.



REID'S NURSERIES

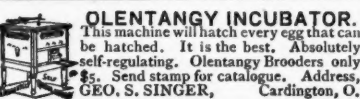
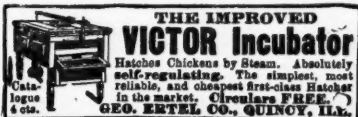
Save on Nursery Stock by buying direct. Highest grade trees, shrubs, vines at lowest prices possible. Invest now. Prices were never before so low. Everything grown is No. 1 stock, healthy, well-rooted and true to name. Write for estimates, suggestions, illustrated catalogue, Free. Try Star Strawberry and Eldorado Blackberry. REID'S NURSERIES, Bridgeport, Ohio.

CAMPBELL'S EARLY Seeds Need Not Be Swallowed.

"First of all Grapes," says Rural New-Yorker. Scaled 96 points in possible 100. "Will ship round the world." Early or Late. Insist on our Seals and get what you buy. Largest stock of other Grape Vines, Small Fruits. Elegant Catalogue FREE. GEORGE S. JOSSELYN, FREDONIA, NEW YORK.

THE HATCHING HEN

HAS LOST HER OCCUPATION and in the production and brooding of chicks she has been supplanted by the better and every way RELIABLE INCUBATORS AND BROODERS. They Hatch and Brood when you are ready. They don't get lousy. They grow the strongest chicks and the most of them. It takes a 24 page book to tell about these machines and our Mammoth Reliable Poultry Farms. Sent by mail on receipt of 10 cents. Send for it now. Reliable Incubator and Brooder Co., Quincy, Illinois.



LIGHT BRAHMAS, B. P. Rocks, White Wyandottes, 17 eggs \$1. Mammoth Pekin Ducks, 14 eggs \$1. Pure farm bred stock. 18 years experience. F. M. BRONSON, Vermontville, Mich.

PEKIN Duck Eggs from finest strains 11 for \$1; 100 for \$5; W. P. Rocks and W. H. Turkeys. Circular for stamp. W. E. BROWN, Mansfield, Ohio.

EGGS for hatching from choice strains of Barred and White Plymouth Rocks, \$1.50 per 15. L. E. BRUNSON & M. M. WILLETT, Plymouth, Mich.

SEND order for Pekin Duck Eggs \$1 per 13. SPOLAND-CHINAS always on hand. Get 1898 catalogue. E. A. CHOMAN, Box 99, Grass Lake, Mich.

BIG beautiful Barred P. Rocks, exclusively. High scoring, thoroughbred stock. Pitkin and Conger strains. Cockerels \$1.50 to \$2.50. Eggs \$1 per 15. E. M. KIES, Reading, Mich.

Poultry Experts' Opinions of Cabot's Insulating



"I have the warmest poultry-house I ever saw, and I have seen a good many."—C. H. LATHAM, Breeder B. P. R., Lancaster, Mass.

"In the coldest weather the water did not freeze in the fountain."—M. K. BOYER, Ed. Farm Poultry.

One layer is as warm as ten of rosin sized paper, and warmer than a layer of boards. Easy to apply, unflammable, indestructible by decay, repellent to insects and vermin. A "comforter" that will keep your poultry warm. (Or your house and stable.)

Send for a Sample. SAMUEL CABOT, 82 Kilby St., Boston, Mass. Agents at all Central Points.

When writing to advertisers please state that you saw their advertisement in the Michigan Farmer.

Farmers' Clubs.

CONDUCTED BY A. C. BIRD.

All correspondence for this Department should be addressed to A. C. Bird, Highland, Mich.

OFFICERS OF THE STATE ASSOCIATION OF FARMERS' CLUBS.

President—E. J. Cook, Owosso.
Vice-President—Mrs. E. L. Lockwood, Petersburg.
Secretary-Treasurer—C. M. Pierce, Elva.
Directors—W. H. Howlett, Dansville; C. J. Phelps, Damon; F. M. Whelan, Vernon; A. L. Landon, Springport; H. Gaunt, Highland; A. P. Greene, Eaton Rapids.
All communications relating to the organization of new clubs should be addressed to C. M. Pierce, Elva, Mich.

THE WEAKEST ELEMENT IN OUR RURAL SCHOOLS.

In the discussion of the Association question for April, we are brought face to face with a problem, the solution of which is directly in our own hands. While legislation may be effectual to a certain extent in shaping the work of our common schools, yet one fact will always exist independent of legislative enactments, namely, that the general condition of the school in every district in the State will be precisely what the residents of the district make it. In other words, in the discussion of this question if fault is to be found, we must find it directly with ourselves, and if remedies are suggested we should remember that we ourselves must apply them.

Personally, we believe that where the rural schools are found to be unsatisfactory, the most common cause is the inattention of the patrons to the importance of securing good teachers. It is forgotten, or but half comprehended, that next to home influences the common school is the greatest factor in shaping the lives of the children of a community, and that oftentimes the influence of the school, either for good or evil, overpowers even that of the home. Would we develop our children morally, physically and intellectually into types of true manhood and true womanhood, all the other forces combined, outside of home surroundings, do not approach in real power the influence of the teacher in this direction. Where home influences are not what they should be the successful teacher may, and in thousands of instances has even overcome the natural tendencies of home life and saved to the community and to the world by personal influence alone the brightest intellects under his charge.

There may be vastly broader spheres of action than that filled by the teachers of our common schools, but there are none other where the personality of a man or woman counts for so much. Few are the children whose ambition will reach higher than that of their teacher, and fewer still those who can withstand the evil influences of a weak personality at the teacher's desk.

To all who have given this matter careful thought these statements are mere truisms, yet we must recognize the fact that few schools have teachers of strong personality. This work of developing the best there is in our children we too often intrust to young boys and girls yet in their teens, whose minds are undeveloped and who as yet have no fixity of purpose and but little appreciation of the importance of their work. Or still more to be deplored, this work is left to those who have demonstrated their inefficiency in other lines of work, and who teach only because people are not so particular as to the kind of work done in the school-room as they are in other lines.

No teacher should be allowed in any school-room whose manner does not inspire good, honest, earnest and enthusiastic work from the pupils in charge. No teacher should be allowed in any school-room who has not a quick and tactful perception of the peculiar needs of each individual pupil, and who has not a business-like faculty of supplying those needs. No teacher should be allowed in any school-room who is not a representative type of true manhood or true womanhood.

We are not blind to the fact that such teachers are rare, but just such young men and young women are daily leaving the teachers' ranks because they can make more money at other work. Could they be kept in the teaching profession that profession would soon attain a dignity heretofore unknown to it, and it would then attract instead of repel vigorous and ambitious intellects. This in due time would eliminate from the profession that great class of inefficient for which the schools have no legitimate use.

That this means higher salaries is doubtless true, but if with higher salaries comes better teachers the investment will be a good one and the people will not be slow to recognize the fact. The people are seldom inappreciative when they get value received for their investment, but they are not slow to object when they pay for the genuine and get the counterfeit.

To make any marked improvement in this direction will necessitate hard work and concerted action in every district by those who believe that a dollar spent for true education for the youth of our State is one of the best investments we can make. That such men exist in every school district we believe to be true. That they will have to meet strong opposition we know. But more difficult problems are met and solved successfully every day by business men. Why not make as great an effort for our schools?

ONE RURAL SCHOOL.

In the discussion of any question specific illustrations are of vastly greater value than any number of finely spun theories as to what might be done. In accordance with this belief, we present a brief history of the rural school from 1881 to the present time, in the district in which it is the good fortune of the editor of this department to live. We believe that this school has on the average been one of the very best of the State rural schools. During the entire period of eighteen years not one term of school has been held that has not been satisfactory to a great majority of the patrons of the district. Why?

1st. Great care has been taken in selecting teachers.

2d. Satisfactory teachers have been retained as long as possible. Two have served five years each, and the present one is completing his fourth year, and has already been engaged for another year.

3d. The average age of the teachers employed has been 25 years.

4th. The economy of paying good wages for good teachers, rather than poor wages for poor teachers, has been uniformly practiced. The average wages for the eighteen years has been nearly \$45 per month. During the hard times of recent years the wages have never gone below \$40 per month.

5th. During twelve years of the period teachers having first grade certificates were employed, and for the remainder of the time those with second grade, excepting the four short spring terms.

6th. The school buildings and school grounds have been kept attractive and in good condition.

7th. All necessary apparatus has been provided.

We have stated the above in what we believe to be the order of their importance. It is to be hoped that from this necessarily brief outline may be drawn hints that will prove of value to districts less fortunate. A discussion of the plan on which this district is working is invited and these columns will be open to the same, be it either commendatory or adverse. All pertinent inquiries regarding the matter will be gladly answered.

INSURANCE QUESTION BOX.

Will you please explain how a company may amend its charter?

Van Buren Co. J. E. H. (Ed.) If organized under the general law, as nearly, if not quite all the farmers' mutual companies are, the following steps are necessary:

1st. Notice of the intention to amend, together with the time and place of meeting for that purpose must be published for five successive weeks in some newspaper of general circulation published weekly in the county or counties where such company does business.

2d. Amendments can be voted upon only at the regular annual meeting, except in the case of companies organized previous to 1873. Such companies may amend at a special meeting called in accordance with their charter, providing the above notice has been given.

3d. The vote required to pass an amendment is determined by the company's charter.

4th. The amendments must then be submitted to the State Attorney-General, accompanied with a fee of \$5, for his approval.

5th. After this approval, copies must be filed with the Commissioner of Insurance, and with the clerk of the county in which the office of the company is located.

The Attorney-General insists that the amendments must be passed word for word as published in the newspaper notice; that the president and secretary of the company shall make affidavit to the fact of the passage of the amendment, and that the publisher make affidavit to the publication of the notice; and that the first publication of the notice shall be five full weeks before the date of the meeting at which the amendment is to be considered.

Must amendments to an insurance company's charter be made at an annual meeting?

Hillsdale Co. R. A. W. (Ed.) Answered above.

REPORTS FROM LOCAL CLUBS.

COUNTY ASSOCIATION FOR SHIAWASSEE COUNTY.

The prospects are very favorable for a County Association of Farmers' Clubs for Shiawassee county. On March 2d an informal meeting was held in the county clerk's office at Corunna to consider the project. Those present were: Presidents L. S. Bowles, Burton Club; P. B. Reynolds, Maple River Club; F. D. Clark, South Vernon Club; Thomas Cooling, North Vernon Club; E. O. Place, North Owosso Club; M. T. Boise, Byron Club; E. E. Warren, Meridian Club; E. E. Campbell, Oak Grove Club; Frank Sergeant, North Newberg Club, and W. H. White, Northeast Venice Club. All expressed themselves very much in favor of the idea, believing much good will come from such an association. It was agreed to adjourn until April 16, when further necessary arrangements will be made.

Shiawassee Co. C. P. R.

ESSEX FARMERS' CLUB.

One of the most pleasant and profitable meetings yet held by this club occurred on March 2d at the pleasant home of Mr. and Mrs. L. G. Loomis. The discussion of the question, "Which rendered to his country the greater service, Washington or Lincoln?" was very interesting and most profitable.

In speaking of the question of mutual insurance, M. S. Moss said there is much need of improvement. Good business methods are often lacking. Many risks are taken which stock companies refuse. Old houses, after insuring, burn somehow, and the insurance is quite often too high. He urged the insured to make themselves fully acquainted with the provisions of their policy. J. C. Jewett regarded high risks, poor chimneys and lack of thorough and prompt reviews as the prime cause of high assessments. L. G. Loomis held tramps and the severe drouths of the past few years responsible for some of the losses. Several other members took part in the discussion.

Several new members were received. Mr. and Mrs. M. S. Moss will entertain the club on April 6th.

Clinton Co. J. T. DANIELLS, Cor. Sec. COLUMBIA FARMERS' CLUB.

At the meeting with Wm. Mount on February 26th the time was devoted to "Echoes from the Institute," and an enthusiastic meeting resulted. L. D. Watkins reported from Reading that the dairymen seemed agreed that any increased profit lay along the line of improvement in the individual cow, and that under most favorable conditions profits ceased with butter at 10 cents a pound or with cheese at 7½ cents. At Hanover the beef feeders seemed to favor feeding grain in the coarsest form possible. T. B. Halliday maintained that T. B. Terry, in his address at Manchester, took a position damaging to the best interests of the farmers in asserting that the growing of clover would develop in the soil all the elements of fertility needed for an indefinite length of time. Mr. Halliday claimed that the potash and phosphoric acid would be exhausted, and cited authorities to establish his position.

"Shall teachers in the rural schools be asked to give instruction above the eighth grade?" was also discussed with much interest and diverse opinions.

Jackson Co. A. R. PALMER, Cor. Sec. SANDSTONE AND BLACKMAN FARMERS' CLUB.

Over 100 were in attendance at the January meeting with Mr. and Mrs. Charles A. Hicks. The questions, "Doings of the Board of Supervisors" and "Farmers' Mutual Fire Insurance Companies" were announced for the March meeting. Mrs. J. J. Daniels read an article on "The Franchise of Woman in Connection with our Public Schools." Woman should exercise her right in the election of school officers and have an equal share in the

offices. Who is more interested in good schools than the mothers?

"The Township Unit System of Schools" was opened by E. A. Avery, who favored the system. It would equalize the tax between the wealthy and the poor districts. In the further discussion of the question the report of the Committee of Twelve was freely used. It was suggested that the financial part of the unit system might be adopted without taking the executive with it. Several spoke of the system as applied in other states, showing it to be more expensive and far less satisfactory otherwise than the district method. Politics in the system was objected to.

Jackson Co. A. AVERY, Cor. Sec. FULTON CENTER FARMERS' CLUB.

March meeting at the home of Geo. Foster. The paper by John Price on "Taxation" brought out a lively discussion. It was decided that farmers pay more than their just share of taxes. The following was decided by the Question Box: "That it would injure the soil to draw and spread manure with the present amount of snow on the ground." "That to feed less corn and give plenty of exercise would prevent thumps in pigs."

In a paper on "The Ideal Farm," Nathaniel Walker thought it was highway robbery to raise two crops in one year on the same land. His hogs last year at eight months old weighed 280 pounds each. In the discussion of the Association question it was decided that the members of the company should attend the annual meetings more than they do.

Meet on April 7th at the home of N. Walker.

Grafton Co. WM. B. FOSTER, Reporter. DUNDEE FARMERS' CLUB.

Mr. and Mrs. Harvey Roach entertained the club on the 4th inst. "How does Farming Compare with Other Occupations?" was ably handled by Mr. French, of Petersburg. The farmer's occupation is healthier, more independent and freer from worry than any other. He need not start at the tap of the bell or the blowing of the whistle, as men in many trades must do. His work is more varied and less monotonous than most any other. He has the rainy days and the long evenings of winter for recreation or mental improvement.

Mr. Bond explained that No. 2 red wheat was graded by adding screenings. Mr. Cochran, who formerly bought wheat, never heard of the method explained by Mr. Bond. The difference in the weight regulated the price he paid. We next met at the home of H. P. Morse, April 1st.

Monroe Co. M. D. S., Cor. Sec. FARMERS' UNION CLUB OF MUSSEY.

The club met March 3d at the home of A. C. Fairbrothers. An essay by A. Balden and a paper by A. Torch on "General Farming" were the distinctive features of the program. An interesting discussion followed. Six new families were added to the membership. The next meeting will be held at the home of Sherman Sherrard, April 7th.

R. M. MATTESON, Cor. Sec. St. Clair Co.

NORTH VERNON FARMERS' CLUB.

At the March meeting of this club held with Mr. and Mrs. P. Cline, a paper on "Agriculture," was read by L. J. Smedley, who thinks farmers realize that to make a success they should be educated, but think it too expensive. They are not willing to pay two dollars for four dollars benefit.

The topic, "Are the mental capacities of the sexes equal?" was discussed, and decided in the affirmative. "Is there danger of plowing too deep for spring crops?" was answered, no, if the ground is under good cultivation. "What action, if any, should be taken by the United States regarding Cuba?" was very interestingly answered by Rev. Stevens, who thought if anything is to be done it should be done at once. That Cuba's freedom should be demanded. On April 6th, we meet with Mrs. Ida Chalker.

STELLA DAVENPORT, Cor. Sec. MARION FARMERS' CLUB.

Mr. and Mrs. S. W. Dickerson entertained the March club. The papers read by Floyd Randall and M. J. Reed were excellent. Mr. Randall had given considerable thought to his subject and handled it in a masterful manner; while Mr. Reed, in a way calculated to offset the snow and chill of winter, gave descriptions of a summer trip to Mackinaw.

The discussions of greatest importance were "State Farmers' Institutes" and "Traveling Libraries." The remarks made in regard to the Institute under State rule were decidedly unfavorable, it being considered a tax without an equivalent, the speakers

claiming that our county could supply equally good or better talent than the State, that the county institute is equipped with competent officers to conduct the meetings, and that a county farmers' institute under county auspices is in every way preferable to State management. After an instructive discussion of the traveling library the club decided to make application at once.

We meet with Mr. and Mrs. H. E. Reed on March 31st.

L. I. BROMLEY, Cor. Sec.
Livingston Co.

ARGONAUT FARMERS' CLUB.

The following deductions were drawn from the discussion of the "Farmers' Mutual Fire Insurance Companies." They are good in the beginning, but as they age they reach out and cover too great territory, and for this reason it would be well for the farmer to leave the old and insure in the new. If the owner insured for about one-third, or if the owner carried a large part of the risk himself, he would exercise greater care over property insured. These companies should be more conservative. The present method of some of the companies of insuring the buildings by measurement is not an equitable one for valuation.

Oakland Co. COR. SEC.
PUTNAM AND HAMBURG FARMERS' CLUB.

A large company had assembled at 12 o'clock, February 26th, with Joseph Placeway, and the meeting was called to order. The petition for doing away with the free seed distribution from Washington, which costs the government \$200,000 every year, was discussed. Among the many who had received seed from year to year, not one thought the seed had ever been of any use, since it generally came after seed had been purchased for the season. The added clause which appropriated \$25,000 of the \$200,000 for introducing new foreign roots into this country and experimenting with them for the benefit of the farmers, was also discussed. The following expressions were brought out: We are supplied with foreign plants, as the Russian thistle, etc., fast enough without paying for it. As the State supports an experimental school, why go to the expense of supporting one at Washington also? A unanimous vote was taken to do away with free seed distribution; also to strike out the last clause relative to the introduction of new roots into this country.

A paper by Mrs. Chas. Brown, subject, "Fear," was much enjoyed.

The State Farmers' Institutes were discussed, the general idea being that our institutes would be just as successful if they had at their head men from our own county, who were well acquainted with the soil and climate of the county. The question "Mistakes and blunders in farming" was discussed. Only four were willing to admit that they had made any such. One did not roll wheat ground enough to hold moisture during the dry weather following; did not sow enough for rye hay, and did not let it cure thoroughly. Two bushels should be sown to the acre. The second did not drag his oats after they were drilled. Third missed it by not replanting corn when it was killed by the hot season two years ago. Fourth missed it by replanting in the wet, cold season; also blundered by not binding cornstalks thoroughly. The next meeting to be held with Mrs. Jas. Hall. Question for discussion, "When is the most profitable time to market crops?"

F. L. ANDREWS, Cor. Sec.
Livingston Co.

WHITE LAKE FARMERS' CLUB.

March meeting held at the home of Mrs. Bartholomew on the 5th inst. In discussing the Association question the following safeguards were advocated: The companies should, through their proper officers, thoroughly examine and appraise the property and insure it for not to exceed three-fourths of its real value, thus letting the owner carry at least one-fourth of the risk himself. Make the territory small enough that one officer can as far as possible assist in appraising all the property, in order that it may all be appraised at the same relative value. Pay the officers per diem and thus remove the temptation to overvalue property or insure unsafe risks in order to increase their salaries. Insure for a short term of years, since property is depreciating in value by reason of natural wear and decay. Insert in the policy a good mortgage clause, which will do justice to all the parties concerned.

"What Constitutes a Practical Education for Girls?" Mrs. N. L. Clark: As the twig is bent so the tree is inclined.

Begin training early. Give good school education. If musically inclined, cultivate in that direction also. Early teach them the value of money and how to use it economically; to be courteous and polite to all; to use good plain language and avoid slang phrases; to be perfect in housekeeping in all its departments. In the absence of men folks, it is convenient for them to know how to milk, to harness and hitch up and unharness a horse. Mrs. Bartholomew: They should be familiar with the current events of the world. They need a business education as well as boys. Mrs. Hubbard: Every girl should fit herself to fill one occupation in life thoroughly, so if required to she may be self-supporting. Rev. Mr. Huyser: They should be taught to exact as high a degree of purity of the men with whom they associate as is required of them.

"Resolved, That the present method of taxing railroads is just," was discussed affirmatively by W. E. Clark. They are now taxed on their earnings. Property which does not earn anything has no value, and hence ought not to be taxed. The majority of the arguments were in favor of taxing them the same as other property. Farm property is assessed whether remunerative or not.

"A Few Thoughts on the Cultivation of Morals in Children," by Mrs. Myron Voorheis, brought out the following: A child's moral training should begin as soon as it notices the difference between a smile and a frown, however early that may be. A child loves its mother's smiles and will try to gain them. If a child wants something it sees, and because it is not gratified immediately, begins to cry, be pretty sure not to give it what it is crying for. Quiet it by turning its attention to something else. After it ceases crying you may gratify its desires if you choose. It will soon learn that crying does not avail. Give it what it cries for and you put a premium upon crying. Children can be taught to cry softly and not to shriek and scream. To accomplish this the mother should pay attention to the little one when it is hungry, tired and sleepy or when it gets a bump or a burn, and not leave it to cry for the sympathy it should receive at once. Do not forget to praise its patience. We should be truthful in our dealings with them, and not make promises which we do not perform. Do not punish for accidents. If necessary to punish, do not show anger. Be mild but firm. Encourage truthfulness. Cultivate unselfishness by teaching it to share its good things with others.

Oakland Co. J. J., Cor. Sec.
PARMA FARMERS' CLUB.

At the meeting of the club on March 4th, with 120 in attendance, we were favored with an interesting talk by Ed. Croman, of Grass Lake, on "Co-operative Creameries," and "The Care of the Dairy Cow." Brad L. Hubert gave a talk on the M. A. C. farm, illustrated by maps. This was followed by an interesting synopsis of the Hanover Institute by B. F. Peckham. The Association question was laid over to the next meeting, to be held with Mr. and Mrs. James Jones, April 1st.

Jackson Co. BRAD L. HUBERT, Cor. Sec.

When writing advertisers mention Mich. Farmer

A New Cure for Kidney and Bladder Diseases, Rheumatism, etc.—Free to Our Readers.



DISORDERS of the Kidneys and Bladder, such as GRAVEL, RHEUMATISM, GRAVEL, PAIN IN THE BACK, FEMALE COMPLAINTS, URINARY DISORDERS, DROPSY, etc. For these diseases a POSITIVE SPECIFIC CURE is found in a new botanical discovery, the wonderful KAVA-KAVA SHRUB, called by botanists, the piper methysticum, from the Ganges river, East India. It has the extraordinary record of 1200 hospital cures in 30 days. It acts directly on the Kidneys and cures by draining out of the Blood the poisonous Uric Acid, Urates, Lithates, etc., which cause the diseased conditions.

Rev. A. C. Darling, of North Constantia, New York, testifies in the Christian Witness that it cured him of Kidney disease after sixteen years' suffering. Hon. R. C. Wood, of Lowell, Ind., writes that in four weeks the Kava-Kava Shrub cured him of Kidney and Bladder disease of ten years' standing, and Rev. Thomas M. Owen, of West Pawlet, Vt., gives similar testimony. Many ladies also testify to its wonderful curative powers in disorders peculiar to womanhood.

That you may judge of the value of this Great Specific for yourself, we will send you one Large Case by Mail FREE, only asking that when cured yourself you will recommend it to others. It is a Sure Specific and cannot fail. Address, The Church Kidney Cure Company, No. 409 Fourth Avenue, New York City. Mention this paper.

Potash

is one of the three important ingredients of a complete fertilizer; the others are phosphoric acid and nitrogen. Too little Potash is sure to result in a partial crop failure.

Free

An illustrated book which tells what Potash is, how it should be used, and how much Potash a well-balanced fertilizer should contain, is sent free to all applicants. Send your address.

GERMAN KALI WORKS, 93 Nassau St., New York.

HOMES IN NEBRASKA

If you think of changing your location remember this; Nebraska's soil is rich

and easily tilled. No rocks and stumps. All grains and fruits that succeed in other states in same latitude flourish there. The climate is well-nigh perfect, the air being dry and free from malaria. An abundance of pure water is found. It is a great state for stock raising and feeding. There is no state in the Union where a hard-working farmer can do so well. Thousands of poor men have become rich in Nebraska. Farms can now be bought on easy terms. Prices are low. A handsome illustrated pamphlet describing Nebraska will be sent free on application to P. S. EUSTIS, General Passenger Agent, Chicago.

CIVIL ENGINEERING

Surveying and Mapping; Mining; Prospecting; Architecture; Mechanical and Architectural Drawing; Electricity; Metal Pattern Cutting; Railroad; Hydraulic; Bridge; Engineering; Mechanical; Plumbing; English; Branches; Bookkeeping; Shorthand; Marine; Stationary and Locomotive Engineering. All who **GUARANTEED SUCCESS.** Fees Moderate, Advance or Installments. Circular Free; State subject you wish to study. International Correspondence Schools, Box 566 Scranton, Pa.

\$10.00 To \$30.00 and expenses can be **EVERY DAY** with our NEW IMPROVED GRAPHOPHONE TALKING-MACHINE. Reduced to **\$10.00**. No previous experience necessary. A wonder as a home entertainer. All the latest songs, speeches or your own voice. Complete outfit, consisting of Machine with automatic spring motor which runs 2 records with one winding, Hearing Tubes, Concert Horn, 12 Musical or Talking Records, large size Show Bills, Admission Tickets, Etc., for **\$15.25**. An opportunity to make BIG MONEY EASY giving public entertainments. Just the thing for Church and Sunday-school entertainments. Anyone can operate them. Send for FREE Catalogue of Graphophones, Records, Etc., with hundreds of testimonials from those who are making big money with our Graphophone Outfits, or, by sending ONE DOLLAR we will send the outfit by express C. O. D., subject to examination, balance payable when received. Address: **SEARS, ROEBUCK & CO. (Inc.) CHICAGO, ILL.** (Sears, Roebuck & Co. are thoroughly reliable—Editor.)

SAVE THE Old Wagons

We make Steel Wheels to fit any size and width tire. Staggard and Straight Spoke. Will not rot or dry out. We also manufacture Steel Handy Wagons. Catalogue free.

Havana Metal Wheel Co., Havana, Ill.

As they live grow hungry for food and unless there is phosphorus in the ground, The leaves will grow yellow and curl. While the fruit will dwindle and die. Then fertilize your trees and the farm with PURE BASIC SLUG. It is cheap. **JACOB REESE, 400 Chestnut Street, Philadelphia, Pa.**

TREES

FARM, FIELD AND GARDEN SEED. Clover and timothy seed a specialty; seed catalogue free. Address: **ADOLPHUS WYSONG, Lebanon, Ind.**

\$2.40 Quick cash buys big bbl. Carman No. 1 or Sir William Seed Potatoes. (Other sorts, too.) **H. H. POWELL, Carson City, Mich.**

A FIRST-CLASS POTATO PLANTER SO CHEAP that YOU can afford to buy it. SO GOOD that if you plant an acre a year you cannot afford to do without it. For circular write to **Schofield & Co., Freeport, Ill.**

PILE permanently cured, bleeding, itching or protruding, no failures, sample free. **Hermit Remedy Co., Dept. B, 187 Dearborn St., Chicago.**

AGENTS WANTED to solicit business for the State Mutual Cyclone Insurance Co. Only reliable parties who will devote a considerable part of their time to the business wanted. Apply with references to the **SECRETARY, Lapeer, Mich.**

LANE'S Steel Carriage Jack Ask your hardware dealer. Makers **Lane Bros., Poughkeepsie, N. Y.**

WHALE AMBER preserves the harness. **BIG PROFITS TO AGENTS.** Also Europe's Best Sheep Dip. Write to **ALFRED R. ANDRESEN & CO., Minneapolis, Minn.**

When writing advertisers mention Mich. Farmer.

BOY'S SUIT FREE TO EXAMINE.

to us and we will send you a suit by express to your nearest express office, C. O. D., subject to examination. Examine it and if found perfectly satisfactory, exactly as represented, the grand bargain you ever saw and really worth twice our introductory price, pay the agent \$1.00 and express charges, otherwise refuse it. **EST.** All sizes to fit boys from 4 to 16 years of age. State Age and whether Large or Small for Age. **DESCRIPTION**—5000 regular \$5.00 suits at \$1.95 to advertise our house. Either dark blue wool cheviot or nice gray check wool Cassimere, as desired, good weight and will wear like iron, made latest style double breasted. Jacket and pants, fine black serge linings, all pockets have in and out flaps, pistol pockets in pants, first-class tailor made. A suit that boy and parent will be proud of. **WE SEND FREE** a handsome book of cloth samples of everything in Boys' and Children's Clothing. Write for Sample Book No. 100 Address **SEARS, ROEBUCK & CO. Inc., CHICAGO, ILL.** (Sears, Roebuck & Co. are thoroughly reliable—Editor.)

LUMBER

to sell direct to the Farmer or Contractor.

Long Barn Timbers, Barn Siding, Flooring, Ceiling, Siding, Lath and Shingles.

Write for prices. **C. S. BLISS & CO., Saginaw Mich.**

1260 '97 BICYCLES BELOW COST

of making to clear our factory. Sent on approval. Second-hand bicycles, \$5 up. **BICYCLE FREE** to advertise us. Easy work, no fake. Write for our great offer. **COOK CYCLE CO., Factory, 12-24 Franklin St.; Salesrooms, 69-71 Fourth Av., CHICAGO.**

CHOICE SEED POTATOES that grow by the bushel, bbl. or car load, including the best new and standard varieties. Prices low. Write for catalogue. **THE C. C. BRAWLEY SEED & IMPLEMENT CO., New Madison, O.**

Tested Seed Potatoes. Carman No. 1 and No. 3. Banner. New Livingston, Ex Early Ohio's, etc. Write us at once for prices on what you want. **W. E. IMES, Vermontville, Mich. Seed Potato Specialist.**

Wabash Line

THE SHORT ROUTE

Chicago, St. Louis & all points West. Home-seekers and California tourists write **R. G. BUTLER, D. P. & P. A., 9 Fort St. West, (Hammond Building.)**

GRAND TRUNK RAILWAY SYSTEM. Depot, foot of Brush St. City office, 84 Woodward Ave. Telephone 39.

Lvs.	EAST VIA PORT HURON	ATT.
* 8:55 am	Mt. Clemens, Ft. Huron & North	* 9:40 am
* 10:15 am	Toronto, Montreal & Portland	* 9:50 pm
* 1:10 pm	Mt. Clemens, Ft. Huron & North	* 8:55 pm
.....	Montreal, New York, etc.	* 1:50 pm
* 2:30 pm	St. Clair, Romeo and Pt. Huron	* 8:10 pm
* 10:40 pm	Buffalo, Toronto and New York	* 6:45 am

EAST VIA WINDSOR.

* 12 noon	Toronto, Buffalo and New York	* 1:50 pm
* 6:40 pm	London and Int. Stations	* 5:30 pm
	London and Int. Stations	* 9:05 am

DETROIT AND MILWAUKEE DIVISION.

* 8:55 am	Saginaw, G. Haven & Milwaukee	* 9:25 pm
* 9:15 am	Pontiac and Int. Stations	* 9:00 pm
* 11:30 am	G. Rapids, Milwaukee & Chicago	* 8:55 pm
* 4:05 pm	Saginaw, Lansing & G. Rapids	* 11:50 am
* 5:45 pm	Pontiac & Intermediate stations	* 8:10 am
* 8:30 pm	Lansing, Battle Creek & Chica.	* 6:00 pm
* 10:30 pm	Grand Rapids, Grand Haven.	* 7:05 am

*Daily except Sunday. *Daily. *Sunday only.



How Many Hoes

Would it take to work 20 acres of corn in a day? How many dollars would the hoeing cost? A big boy and a horse can weed and cultivate 20 acres of almost any crop in a day with the Success Anti-clog Weeder. The greatest labor—time—money saving farm implement of the century. "It paid for itself the first three days that I used it." —D. J. CONGER, Jonesville, Mich. Does more and better work than any other single tool, and does it cheaper than you could do it any other way.

"The Success Weeder saved me at least \$50 this season."—A. O. NICHOLS, Manomet, Mass.

"The Success Weeder saves us \$100 a year in labor."—G. P. WILLETS, No. Collins, N. Y.

HALLOCK'S SUCCESS^{ANTI-CLOG} WEEDER



is the only weeder made with flat teeth—twice as flexible, durable and effective as round teeth. Liberal inducements to farmers and others to sell the Success Weeder.

"The Success Weeder takes at sight. Could have sold several more if I had had them in time. Think you can book me for 20 Weeders next spring."—JOHN LIVINGSTON, Morley, N. Y.

The first order from your town will secure special price and agency.

Write for full information; be sure to give name of county.

D. Y. Hallock & Son, Box 806, York, Pa.

Scotch Diamond Harrow.

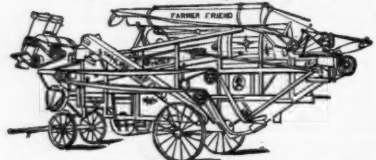
BEST IN THE WORLD.

Cuts eleven feet wide with one stroke. Does more work than three strokes with any other harrow made in any kind of soil. Address:

THOS. TIPLING, 113 East Wood-bridge Street, DETROIT, MICH.

THE NEW HUBER THRESHER

With Plain, Swinging or Wind Stacker. Has no equal for fast and perfect work.



THE NEW HUBER TRACTION ENGINE. Winner in all practical tests at World's Fair. All sizes, both simple and compound. Ask for Catalogue.

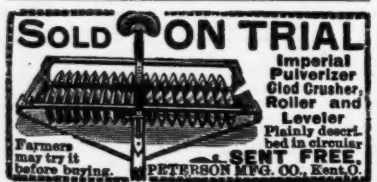
THE HUBER MFG. CO., Box 4, Marion, Ohio.

BEST IN THE WORLD.

Wan's Patent Improved Post Hole and Well Auger. Is convenient and effective in operation. Excellence of material and construction. Awarded Medal and Diploma at the World's Columbian Exposition 1893. It is unexcelled for easy and quick work. A man can do three times the work than with any other auger or digger now in use. Size 6, 7, 8, 9 in., price, \$2.50 each. Size 10 in., \$3.00. Mention this Paper. IWAN BROOK, Streator, Ill.

GO INTO BUSINESS

for yourself and make money drilling wells. People must have water, and will always pay liberally for good service of this kind. For all kinds of drilling—water, gas or oil you will find **STAR DRILLING MACHINES** to be the most rapid and most durable made. Are made on new and improved lines, and embody in their construction the best material and workmanship procurable. Either steam or horse power, and made in 9 sizes. **Star Drilling Machine Co.** Catalog free on application. AKRON, O. or ST. LOUIS, Mo.



SOLD ON TRIAL Imperial Pulverizer, Glod Crusher, Roller and Leveler. Plainly described in circular. **SENT FREE.** Write for Catalogue. **PETERSON MFG. CO., Kent, O.**

FIRE-WEATHER-LIGHTNING PROOF Black, painted or galvanized metal ROOFING and siding (brick, rock or corrugated). **METAL CEILINGS AND SIDE WALLS.** Write for Catalogue. **Penn Metal Ceiling and Roofing Co., Ltd., Philadelphia**

THE 1898 "BONNIE"

Is built so as to combine the **Greatest Utility and Binding Power with Simplicity, Accuracy, Lightness, Strength, Durability, etc., etc.,** in a single machine. Has **Roller Bearings** where they will do the most good.



It is built on a solid foundation of steel which combines the essential features of **LIGHTNESS & STRENGTH WITH GREAT BEAUTY.**

The satisfaction of operating a nice and perfect working machine is worth something. It may keep the boy on the farm. Has a simple raising device that does raise and lower the machine.

Has a main wheel that is just broad enough and high enough to afford **Perfect Traction**, apply the power and carry the machine lightly over the ground. Truss rod grain wheel that is always in place. **A PERFECT ADJUSTER** that evens the bundles. A reel of simple adjustment to many angles and ranges with **one single lever.** But it **HAS A BINDER THAT WILL BIND, BUNDLE CARRIER.** Short or long, heavy or light, upright or tangled and down grain, the "BONNIE BINDER" gathers and binds it all. We can't enumerate all its good qualities in this small ad. but we can send you our **Free Book on Binders** which fully describes this and other machinery we make, giving cuts of parts and complete machines and fully describing and explaining each. Write for it at once.

THE JOHNSTON HARVESTER CO. Batavia, N. Y., U. S. A.

WE HAVE NO AGENTS



No. 77. Surrey Harness. Price, \$16.00. As good as sells for \$25.

but have sold direct to the consumer for 25 years at whole sale prices, saving him the dealer's profits. Ship anywhere for examination. Everything warranted. 118 styles of Vehicles, 55 styles of Harness, Top Buggies, \$36 to \$70. Surreys, \$50 to \$125. Carriages, Phaetons, Traps, Wagons, etc., Spring-Road and Milk Wagons. Send for large, free Catalogue of all our styles.



No. 606 Surrey. Price, with curtains, lamps, sun-shade, apron and fenders, \$60. As good as sells for \$90.

ELKHART CARRIAGE AND HARNESS MFG. CO. W. B. PRATT, Sec'y, ELKHART, IND.

Ours is the Most Complete Department Nursery in the U. S.

rates. We publish one of the leading Seed, Plant and Tree Catalogues issued, which will be mailed free. Send for it now, it will save you money. Try us, can refer you to customers in every state and territory in the Union. Forty-three years of square dealing has made us patrons and friends far and near. Have hundreds of carloads of

FRUIT AND ORNAMENTAL TREES, SHRUBS, ROSES, PLANTS.

We send by mail postpaid, **Seeds, Bulbs, Plants, Roses, Small Trees, Etc.** Safe arrival and satisfaction guaranteed; larger by express or freight. 44th year. 32 greenhouses. 1000 acres. **THE STORRS & HARRISON CO., Box 555, Painesville, O.**

How's Your Roof?

Avoid mistakes and secure the very best thing of the kind made. Use **Sykes "Old Style" IRON ROOFING.** It is made in a variety of styles, is easily put on and is long-lived and handsome. Falling sparks can't fire it, hail can't break it and the wind can't blow it off. Roofs that have been on 25 years are good yet. Send for catalogue and prices. **Sykes Iron and Steel Roofing Co. Niles, O. and Chicago, Ill.**

HE PAYS

THE FREIGHT. BEST SCALES, LEAST MONEY. JONES OF BINGHAMTON, N. Y.

ELECTRIC HANDY WAGON



EASY TO LOAD. MADE TO LAST ALWAYS.

Our perfect knowledge of this wagon and the quality of material used in its construction leads us to declare it to be the **NEATEST, STRONGEST, MOST DURABLE, LONGEST LIVED, EASIEST TO LOAD** wagon made. Has our famous straight or stagger spoke **Electric Steel Wheels**

Wheels have any width of tire, from 3 to 8 inches any height, from 24 to 60 inches. Impervious to heat or cold; can't dry out, get loose or rot; **NO RESETTING TIRES** and repairs. Best angle steel bounds. First class. **All F. O. B. For \$25.00** brake \$4.00 extra. It has given universal satisfaction and will fit your requests exactly. Don't buy until you get our **FREE** catalogue and prices. Write for them at once.

ELECTRIC WHEEL CO. BOX 58, QUINCY, ILL.

Easy for the Farmer

to do good work and lots of it, if he has a **Hench & Dromgold** riding or walking **SPRING TOOTH WHEEL HARROW**



Write for our new illustrated catalog and find out all about the best harrows, cultivators, corn planters, grain drills, etc. Mailed free. **HENCH & DROMGOLD, York, Pa.**

THE FARQUHAR



PATENT VARIABLE FRICTION FEED. Medal and Highest Award at the World's Columbian Exposition.

SAW MILL & ENGINE

BEST SET WORKS IN THE WORLD. Warranted the best made. Single Mills, Machinery, and Standard Agricultural Implements of Best Quality at lowest prices. Illustrated Catalogue.

FARQUHAR SEPARATOR LARGEST CAPACITY. Most economical, lightest draught, wastes no grain. "Gleans ready for market." Send for catalogue. **A. B. FARQUHAR CO., Ltd., York, Pa.**

When writing advertisers mention Mich. Farmer